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## Athletic training education program director burnout: contributing factors

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ATHLETIC TRAINING EDUCATION PROGRAM DIRECTOR BURNOUT:  
CONTRIBUTING FACTORS

DISSERTATION

SUBMITTED TO

The School of Education and Allied Professions

THE UNIVERSITY OF DAYTON

In Partial Fulfillment of the Requirements for

The Degree

Doctor of Philosophy in Educational Leadership

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THE UNIVERSITY OF DAYTON


DAYTON, OHIO

August 2009

ATHLETIC TRAINING EDUCATION PROGRAM DIRECTOR BURNOUT:


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# ATHLETIC TRAINING EDUCATION PROGRAM DIRECTOR BURNOUT: CONTRIBUTING FACTORS

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The University of Dayton, 2009

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The field of athletic training has undergone a process of education reform during the past decade, resulting in not only an evolution of athletic training education programs, but also an evolution of the program director. The various roles of the athletic training education program director, along with the institutional classification, program director demographics, and psychological factors such as Locus of Control, Role Conflict and Role Ambiguity were theorized to contribute to the development of burnout syndrome, a multi-dimensional phenomenon characterized by emotional exhaustion and disengagement from work. This study included the responses of 108 directors of athletic training education programs accredited by the Commission on the Accreditation of Athletic Training Education (CAATE), for a response rate of 31.49%. Participants were asked to complete an electronic survey consisting of demographic questions, the

Oldenburg Burnout Inventory (OLBI), the Role Questionnaire, and Rotter's Internal External Locus of Control Survey. Statistically significant Pearson product-moment correlations were found to exist at the  $p < .01$  level between program director perceived burnout and the burnout constructs of exhaustion, disengagement from work and total burnout, as well as between both Role Conflict and Role Ambiguity and the burnout constructs of exhaustion, disengagement from work, and total burnout as measured by the OLBI. Implications and recommendations for future research are included.

To my beautiful wife Kacey with immeasurable love, thank you for undertaking this journey with me – I can hardly wait for all our future holds.

## ACKNOWLEDGEMENTS

Thank you to the members of my committee who gave their time and guidance in the completion of this study, and to the program directors who took the time to participate in this project.

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## Chapter I

### Introduction

#### *Statement of the Problem*

As directors of athletic training education programs complete the process of education reform, the athletic training education program director position has also undergone evolution. This evolution has resulted in a position much different than that of the traditional clinician role generally associated with the athletic training profession. Athletic training education program directors are now expected to serve as college and university faculty members. There also exists an expectation for the athletic training education program director to serve as an academic administrator, student advisor, teacher and, oftentimes, a clinician (Judd & Perkins, 2004; Perkins & Judd, 2001). The different expectations associated with these varying roles oftentimes leads to what has been termed as the burnout syndrome. Burnout has been defined as a multi-staged condition with both physical and emotional symptoms and outcomes (Freudenberger, 1974). Major components of burnout syndrome have included dehumanization (Pines & Aronson, 1988), depersonalization (Maslach & Jackson, 1981), and disengagement (Bakker, Demerouti, & Verbeke, 2004). To date, most research involving burnout syndrome and athletic trainers has been anecdotal in nature or structured as a general review of the syndrome with implications for the athletic trainer (Gieck, 1984, 1986; Gieck, Brown, & Shank, 1982; Vergamini, 1981). There have, however, been some

studies which have examined the existence of the burnout syndrome among athletic trainers (Campbell, Miller & Robinson, 1985; Capel, 1986, 1990; Hendrix, Acevedo, & Herbert, 2000) and research has shown that multiple factors can influence the existence of burnout (Campbell et al., 1985; Capel, 1986; Maslach & Jackson, 1981; Rizzo, House, & Lirtzman, 1970; Rotter, 1966). With the paradigm shift in athletic training education and with the athletic training education program director position, do psychological and demographic factors influence the professional burnout experienced by athletic training education program directors in Commission on Accreditation of Athletic Training Education (CAATE) accredited entry-level athletic training education programs?

The primary purpose of this study was to determine factors influencing the level of professional burnout among program directors working within CAATE accredited entry-level athletic training education programs. To this end, the following research questions provide the basis of this study.

### *Research Questions*

1. What relationship exists between athletic training education program institution classification and athletic training education program director burnout?
2. What relationship exists between athletic training education program director demographics and athletic training education program director burnout?
3. What relationship exists between athletic training education program director role conflict and athletic training education program director burnout?
4. What relationship exists between athletic training education program director role ambiguity and athletic training education program director burnout?

5. What relationship exists between athletic training education program director Locus of Control and athletic training education program director burnout?

### *Significance of the Problem*

The field of athletic training education has undergone significant changes during the time frame of 1990 to the present. From the beginning, athletic training education has sought to prepare entry-level allied health practitioners in the field of athletic training. Athletic training is predominantly concerned with the prevention, treatment, rehabilitation, evaluation, and emergency care of athletic injuries, as well as patient education and professional development.

Originally, the National Athletic Trainers' Association (NATA) established criteria for a college or university to have approved curriculum for athletic training education programs. At the same time, candidates could pursue certification through the apprenticeship style "internship route" to certification. Gradually, those in the profession sought to raise credibility of both the profession and athletic training education programs, resulting in a move away from both the approved curriculum and internship route to a full accreditation from the Commission on the Accreditation of Allied Health Education Programs (CAAHEP). In 2006, athletic training education moved away from CAAHEP accreditation to its own accrediting body, the Commission on the Accreditation of Athletic Training Education (CAATE) due to impending changes to CAAHEP accreditation which were deemed incompatible with athletic training education (Sexton & Turocy, 2003). With this education reform, athletic training educators have endured changing roles and expectations. Initially, the athletic training educator was a clinician,

primarily concerned with the prevention, evaluation, treatment, rehabilitation, and emergency care of athletic injuries with some teaching responsibility mixed in. The current athletic training educator is more likely to be employed in a full-time (possibly tenure track) faculty position, concerned with the rigors of academe and program accreditation with limited or no clinical responsibilities. As athletic trainers move from the role of the clinician to full-time faculty, it is important to understand the impact of this paradigm shift upon those who have been at the forefront of education reform, the program directors.

Reform of entry-level athletic training education has been in progress for many years, culminating with the creation of CAATE and the transition to CAATE accreditation in July of 2006. With accreditation comes standards, and with those standards come new roles and increased expectations both for institutions and those working within the institutions. Such is the case with athletic training education, where accreditation standards and guidelines have created the faculty athletic training education program director position.

Previous research in the area of burnout has examined various other occupations, trades, and professions (Bakker, Demerouti, & Verbeke, 2004; Maslach & Jackson, 1981; Maslach, Schaufeli, & Leiter, 2001) while the research on burnout and athletic training has been limited in focus, with the majority of research conducted with certified athletic trainers working within National Collegiate Athletic Association Division I intercollegiate athletics programs (Hendrix, Acevedo, & Herbert, 2000; Pitney, Ilsley, & Rintala, 2002) or with a general population of athletic trainers (Campbell, Miller, & Robinson, 1985; Capel, 1986, 1990). While this research is helpful in expanding the

knowledge base and providing an understanding of professional burnout among athletic trainers, the findings do not consider factors unique to athletic training education program directors. Friesen and Sarros (1989) examined factors which contributed to sources of burnout among teachers and administrators in a public school setting, but the findings in this area are difficult to generalize to higher education, and specifically athletic training education, as the rigors of accreditation and issues of higher education differ from those in traditional public schooling in the United States. Combined with the fact that the entry-level athletic training education program director may be expected to serve as teacher, administrator, and clinician, oftentimes simultaneously, it would be difficult to gain insight into factors contributing to the professional burnout among athletic training education program directors without directly studying the said program directors.

Several studies (Judd & Perkins, 2004; Perkins & Judd, 2001; Staurowsky & Scriber, 1998) have examined factors related to job satisfaction and the work lives of athletic training education program faculty and program directors, while developing a research base relative to job satisfaction. None of these studies has considered professional burnout of athletic training education program directors of entry-level athletic training education programs.

This study sought to develop further understanding of the factors contributing to professional burnout among athletic training education program directors of entry-level CAATE accredited athletic training education programs.

#### *Assumptions*

1. It is assumed that athletic training education program directors will respond to the survey instruments truthfully and accurately.

2. It is assumed that all respondents will be currently employed as a program director of an entry-level athletic training education program accredited by CAATE.
3. It is assumed that all individuals who serve as program directors of entry-level athletic training education programs are certified as athletic trainers by the Board of Certification, Inc. (BOC).

#### *Limitations*

1. Some athletic training education program directors may not wish to participate in this study.
2. This study will not attempt to consider all factors which might contribute to burnout among athletic training education program directors.

#### *Delimitations*

1. Only program directors of entry-level athletic training education programs accredited by CAATE and located within the United States will be included in the sample.
2. Only three potential contributors to burnout (locus of control, role ambiguity and role conflict) will be examined due to previous research linking these variables to the burnout construct (Capel, 1986; Glass & McKnight, 1996; Rizzo, House, & Lirtzman, 1970; Schaufeli & Enzmann, 1998) .

#### *Definitions*

- *Athletic training* – allied health profession involving the prevention, emergency care, treatment, evaluation, and rehabilitation of athletic injuries



- *Board of Certification (BOC)* – national organization which certifies athletic trainers
- *Burnout* – psychological response to stress with measured dimensions of exhaustion and disengagement from work (Halbesleben & Demerouti, 2005) which may result in physical, emotional and other psychological symptoms (Freudenberger, 1974)
- *Burnout dimensions* – measures of exhaustion and disengagement from work which, when summed, comprise burnout
- *Commission on the Accreditation of Athletic Training Education (CAATE)* – Body responsible for creating and overseeing the minimal standards and guidelines for athletic training education programs
- *Entry level* – level of preparation necessary to be eligible to sit for the BOC examination, including proficiency in athletic training educational competencies and clinical proficiencies and graduation with a bachelor's degree from an institution with a CAATE accredited athletic training education program
- *National Athletic Trainers' Association (NATA)* – national organization which advances and promotes the profession of athletic training
- *National Collegiate Athletic Association (NCAA) Division I* – college or university athletics classification in which the institution offers a minimum of seven sports for each gender (or six male, eight female sports), as well as required minimal financial aid awards for athletics programs and maximal financial aid awards for each sport within the athletics programs (National Collegiate Athletic Association, 2007)

- *National Collegiate Athletic Association (NCAA) Division II* – college or university athletics classification in which the institution offers a minimum of five sports for each gender (or four male, six female sports), as well as maximal financial aid awards for each sport within the athletics programs (National Collegiate Athletic Association, 2007)
- *National Collegiate Athletic Association (NCAA) Division III* – college or university athletics classification in which the institution offers a minimum of five sports for each gender, with no financial aid related to athletics competition (National Collegiate Athletic Association, 2007)
- *National Association of Intercollegiate Athletics (NAIA)* – college or university athletics classification in which the institution promotes gender equity for athletics programs as well as education and student development through athletics participation while offering some financial aid related to athletics competition (National Association of Intercollegiate Athletics, 2005)
- *Program director (PD)* – a faculty member who holds the athletic training BOC certification and requisite state credential who is responsible for administering the CAATE accredited athletic training education program

### *Summary*

This chapter served as the introduction to the proposed dissertation topic and included a statement of the problem, research questions, the importance of the study, assumptions, limitations, delimitations, and definitions. The framework and rationale presented in this chapter will be supported by the review of related research and literature found in the following chapter.

## Chapter II

### Related Research and Literature

#### *Introduction*

Athletic training is a relatively new field, having been organized in its current state for approximately 50 years (Ebel, 1999). Just as athletic training is a relatively young field, so too is the area of burnout research. Many of the constructs and theories surrounding burnout have emerged following the work of Freudenberger (1974) and Maslach and Jackson (1981). This chapter is presented in sections detailing the history of the athletic training profession and education reform, the changing role of the athletic training education program director, theoretical and conceptual frameworks of burnout, and burnout in athletic training and related professions.

#### *Athletic Training Origins and Education Reform*

The structure of the athletic training education program has undergone major changes in recent years, with the creation and implementation of the Commission on the Accreditation of Athletic Training Education (CAATE) accreditation process. While the implementation of these changes appeared to have occurred almost overnight, the fact is that the current face of athletic training education and the CAATE accreditation process are the result of more than 50 years of work toward professional development of and by athletic trainers (Delforge & Behnke, 1999). To begin to understand the current face of

athletic training education, one must first understand the roots of the profession and the steps taken to develop professional training of entry-level athletic trainers.

Historically, there is evidence of ancient Greek physicians performing tasks similar to those of the modern athletic trainer. The modern athletic trainer and the athletic training profession, however, were born out of the rise of organized sport in the early portions of 20<sup>th</sup> century America (Ebel, 1999; O'Shea, 1980). By 1905, the number of catastrophic injuries in American football was increasing. The result was President Theodore Roosevelt calling for reform of the sport and implementation of safety rules and regulations. By March of 1906, the Intercollegiate Athletic Association of the United States had formed with a goal of decreasing the amount of catastrophic injuries associated with American football. This organization changed its name in 1910 to the National Collegiate Athletic Association (NCAA, 2005). While the National Collegiate Athletic Association sought to implement rules' changes to make American football safer, this newfound focus on health and safety attracted several individuals to American college and university campuses who would become the first of the modern athletic trainers. Men such as Dr. S. E. Bilik and Jack Heppinstall were two of the earliest pioneers in the athletic training profession, beginning their athletic training careers in 1914 (O'Shea, 1980). It would be another 24 years before athletic trainers would attempt to organize and establish a formal organization (National Athletic Trainers' Association, 2006).

Pharmaceutical salesmen and Cramer Chemical Company owners Frank and Chuck Cramer are credited by many as being early catalysts for the organization of athletic trainers. Not only was it good for their business (they produced and sold a variety

of products used in athletic competition), but they also had a passion for the profession. As they traveled and made contacts selling their products, they also began to relay information regarding athletic training techniques (Ebel, 1999). The Cramers first published *The First Aider* as an informational and educational resource for athletic trainers in 1932 (O'Shea, 1980). In 1938, during a visit to the Drake Relays in Des Moines, Iowa, Chuck Cramer and University of Iowa athletic trainer Bill Frey came up with the idea to establish a national organization for athletic trainers. This new organization would be short-lived, however, succumbing to the pressures of a nation at war. By 1944, the first National Athletic Trainers' Association folded (National Athletic Trainers' Association, 2006). Although it failed, this early organization established many standards and ideas, such as a professional journal, the development of districts, and a leadership structure, which would resurface in a post-World War II United States.

In 1949, the Cramers again sought to help organize athletic trainers and the athletic training profession, pledging financial support and development of the earliest athletic training curriculum through their "Cramer Course" (National Athletic Trainers' Association, 2006). The first meeting of the new National Athletic Trainers' Association (NATA) occurred in June of 1950 in Kansas City, Missouri, with 101 athletic trainers in attendance. It is from this first national meeting that the current NATA was established (O'Shea, 1980). As the organization began to grow, the need to develop recognition of the profession came to the fore. In response to the recognition issue, the NATA established a Committee on Gaining Recognition in 1955. In 1956, the Committee on Gaining Recognition began a 3-year process of examining requirements and building the framework of what would become the first NATA approved athletic training education

curriculum. By 1959, the committee had designed a curriculum that involved a piecemeal construction of an education program utilizing an apprenticeship model in combination with courses that already existed in many institutions' health and physical education departments. One major goal of the early curriculum was to prepare students not only to serve as athletic trainers, but also to prepare them for advancement to physical therapy programs and to serve as secondary teachers (Delforge & Behnke, 1999). Despite the fact that many colleges and universities already offered many of the necessary courses, it would take until 1969 and a call for the creation of a national certification exam for institutions to take notice and establish the first athletic training education programs eligible to gain approval from the NATA (Ebel, 1999; Grace, 1999).

The work of the Committee on Gaining Recognition, and a 1967 recommendation for professional preparation of athletic trainers by the American Medical Association (AMA), resulted in the 1969 establishment of the NATA Professional Education and the NATA Certification Committees. The work of these two committees would continue to build upon the 1959 curriculum to lay the foundation for the modern accredited athletic training education program (Delforge & Behnke, 1999; Grace, 1999).

The 1967 AMA recommendation for professional preparation of athletic trainers, combined with a desire to elevate the athletic training profession and provide recognition of the skills and abilities of athletic trainers resulted in a renewed push for educational development and the establishment of a national certification for athletic trainers (Delforge & Behnke, 1999; McLean, 1969b). To achieve certification, the NATA Certification Committee worked to establish a certification examination that would measure benchmarks in areas such as anatomy, physiology, injury prevention, evaluation,

and treatment (McLean, 1969a). It was the establishment of these benchmarks that helped the NATA Professional Education Committee further advocate for colleges and universities to establish athletic training education programs that would meet the needs of future certification exam test takers as well as fulfill the requirements to earn NATA approval of the athletic training education curriculum. By the end of 1969, and with the implementation of the certification examination looming, four institutions had earned NATA approval of their athletic training curriculum (O'Shea, 1980).

The 1970s saw further development and growth of athletic training certification and the athletic training education curriculum. In August of 1970, the first 14 candidates were tested for athletic training certification (Westphalen & McLean, 1978). As the 1970s progressed, changes were gradually made to the 1959 curriculum, with the largest of these changes including a gradual elimination of the secondary school teaching requirement and a decrease in the emphasis on physical therapy school preparation (Ebel, 1999). In 1977, the NATA tested 506 candidates for examination (Westphalen & McLean, 1978) and by 1978, 24 institutions hosted NATA-approved athletic training curriculums (O'Shea, 1980).

The 1980s would see continued growth and development of athletic training curriculum programs. By 1982, the number of NATA-approved athletic training curriculum programs had grown to 62, and the NATA Board of Directors approved plans to require institutions to elevate athletic training curriculums to full majors (or "equivalent majors") by July 1, 1990 (Delforge, 1982). As the 1980s progressed and athletic training curriculum programs moved toward achieving full major status, the NATA Board of Directors, upon recommendation of the Professional Education

Committee, made the decision in 1987 to seek accreditation through the AMA's Committee on Allied Health Education and Accreditation (CAHEA). In order to achieve accreditation through the CAHEA, however, the profession first needed to gain AMA recognition as an allied health profession. So, in June of 1990, as the number of athletic training curriculum programs grew to 73, the AMA recognized athletic training as an allied health profession, opening the door for further elevation of the athletic training profession and education programs by making the prospect of program accreditation a reality (Delforge & Behnke, 1999; Ebel, 1999).

As the move toward accreditation was made, a new committee was established with representation from the American Academy of Family Physicians, American Academy of Pediatrics, American Orthopaedic Society for Sports Medicine, the AMA and the NATA. This new committee would be known as the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT; National Athletic Trainers' Association, 1995).

The JRC-AT was tasked with developing protocol for evaluating athletic training curriculum programs, rendering the NATA approval of athletic training curriculum programs obsolete. The process would now consist of a program evaluation by the JRC-AT which would, in turn, make an accreditation recommendation to CAHEA. CAHEA accreditation would be short-lived, however, as the AMA dissolved CAHEA in 1992 in favor of the establishment of the independent Commission on the Accreditation of Allied Health Education Programs (CAAHEP).

The process for gaining accreditation through CAAHEP would essentially be the same as that which was utilized for CAHEA accreditation, and by 1998 the number of



CAAHEP accredited athletic training education programs had grown to 82 (Delforge & Behnke, 1999). With the establishment of CAAHEP accreditation for athletic training education programs, an accreditation deadline of January 1, 2004, was established for all programs. After this date, students would not be eligible to take the national certification examination if they had not graduated from a CAAHEP accredited athletic training education program. As this deadline approached, the number of CAAHEP accredited athletic training education programs continued to expand, reaching 165 by early 2002 (Starkey, Koehneke, & Ryan, 2001).

As the 2004 deadline approached, the JRC-AT and its sponsoring organizations decided in 2003 to become an independent accrediting agency. This move came as a result of impending changes to the CAAHEP accreditation process of which the JRC-AT and its sponsoring agencies did not approve. Becoming an independent accrediting agency would allow the JRC-AT to gain recognition from the Council on Higher Education Accreditation and provide athletic training education programs with a profession specific accrediting body (Sexton & Turocy, 2003). On June 30, 2006, the JRC-AT gained independence from CAAHEP and changed its name to the Commission on the Accreditation of Athletic Training Education (CAATE).

CAATE is currently the agency responsible for overseeing the accreditation of athletic training education programs and, as of 2007, there were 344 accredited undergraduate athletic training education programs (Commission on the Accreditation of Athletic Training Education, 2007).

“Education always is one of the most pressing problems to be analyzed as any profession attempts to advance” (Newell, 1984, p. 258). This was true in the 19<sup>th</sup> century,

as professional areas such as law and medicine sought to gain credibility and advance (Brubacher & Rudy, 1997), and became the driving force behind the establishment and advancement of athletic training education. Athletic training is a relatively new professional area of study when compared to law and medicine, and there is much work remaining to achieve the goal of raising and advancing the profession. It is an understanding of the history of the educational progress and the profession itself which will help shape the future of athletic training education. With changes to the profession and athletic training education programs, changes to the athletic training education program director position closely followed.

#### *Changing Role of the Athletic Training Education Program Director*

With the establishment of the earliest approved athletic training education programs came the development of the athletic training education program director role. Initially, most athletic training education program directors served as both the head athletic trainer as well as the director of the athletic training education program (Leard, Booth, & Johnson, 1991; Perrin & Lephart, 1988; Sciera, 1981). Perrin and Lephart (1988) noted the difficulties associated with the combined role of one individual serving as the athletic training education program director and a clinical care provider while struggling to gain academic recognition and status as well as attempting to navigate the tenure and promotion process. The difficulty of simultaneously fulfilling both the academic and clinical role has gradually resulted in a decrease in the daily clinical involvement by athletic training education program directors (Leard, Booth & Johnson, 1991; Perkins & Judd, 2001). The shift away from the clinician role and its involvement with athletes and athletics (which attracted many to the athletic training profession),

combined with increasing responsibilities associated with academe, such as tenure and promotion, student issues, administrative workloads, and maintaining program accreditation, have been suggested to be precursors to job dissatisfaction and job burnout among directors of athletic training education programs (Judd & Perkins, 2004; Perrin & Lephart, 1988).

### *Theoretical and Conceptual Framework of Burnout*

There are a multitude of studies investigating the burnout phenomenon with multiple theoretical and conceptual frameworks and definitions. The wide variation in burnout measures and definitions in the literature has resulted in ambiguity and confusion over what precisely constitutes the burnout condition (Meier, 1984).

One of the earliest theories of burnout was developed by Freudenberger (1974), who deemed burnout a multi-staged condition of both physical and emotional symptoms which prevail among those with high levels of commitment and dedication to their areas of practice. While Freudenberger's work focused primarily on clinical psychologists, the framework is expanded to consider those professionals whose primary role involves helping or addressing the needs of others. These professional classifications are commonly referred to in the literature as "helping professions" (Freudenberger, 1974; Pines, Aronson, & Kafry, 1981).

Kahn (1978) also described burnout as consisting of both physical and emotional components and undesirable attitudes toward clients and self. This undesirable attitude has been deemed "dehumanization" by Pines and Aronson (1988) "depersonalization" by Maslach and Jackson (1981) and "disengagement" by Bakker, Demerouti, and Verbeke (2004).

Building on the earlier theories by Freudenberger (1974) and Kahn (1978), Maslach and Jackson (1981) asserted that the burnout condition is a factor of emotional exhaustion (feeling emotionally spent), depersonalization (negative feelings toward students, clients, patients, or other individuals), and decreased sense of personal accomplishment (negative self-evaluation and perception). Some researchers, however, have argued against the inclusion of the personal accomplishment dimension of the burnout framework, instead focusing mainly on the exhaustion and depersonalization constructs (Demerouti, Bakker, Vardakou, & Kantas, 2002; Kristensen, Borritz, Villadsen, & Christensen, 2005; Schaufeli & Taris, 2005). A further definition of burnout considers the situational and environmental components, suggesting that those situations which are perceived as highly demanding emotionally, such as those found in social service or helping professions, can result in emotional, mental and physical exhaustion and dehumanization of those being served by those who are in the helping role (Pines & Aronson, 1988). It is the theoretical assumptions regarding burnout that define the condition as consisting of emotional exhaustion and disengagement that serve as the theoretical underpinnings of this study.

#### *Theorized Causes and Factors Influencing Burnout*

Research in the area of professional burnout has suggested many possible influencers of burnout, including personal demographics (age, gender, education, marital status, and work related experience, role conflict and role ambiguity), workplace demographics (workload, client numbers, and problems), and psychological characteristics (locus of control, self-esteem, hardiness; Schaufeli & Enzmann, 1998).

Considering personal demographic factors, those who are younger and newer to their career area tend to exhibit signs of burnout more frequently than those who are older and have been working in their fields longer (Pines & Aronson, 1988).

Glass and McKnight (1996) reported that the personality characteristic of an external locus of control was a contributing factor to both depersonalization and emotional exhaustion among human service professionals. People with an external locus of control exhibit beliefs that life situations and events are attributable to non-controllable factors such as chance or luck. People with an internal locus of control believe that they hold significant control over life situations and events (Rotter, 1966).

Psychological factors such as role conflict and role ambiguity have also been found to be correlated with the existence of the burnout condition (Schaufeli & Enzmann, 1998). Role conflict is defined as incongruent tasks or goals within a position or career, where role ambiguity is the result of unclear goals or objectives within a job (Rizzo, House, & Lirtzman, 1970).

### *Symptoms and Effects of Burnout*

With the theoretical and conceptual framework of burnout including components of both physical and emotional symptoms (Freudenberger, 1974; Kahn, 1978; Pines & Aronson, 1988), the symptoms and effects on the individual suffering from burnout may vary widely. Maslach and Jackson (1981) and Pines and Aronson (1988) both concluded that a major emotional symptom of burnout is emotional exhaustion, which eventually results in a depersonalization or devaluation of the individualism of the client being served. The burnout syndrome is also thought to lead to increased frustration, decreased morale, and depression (Daley, 1979; Freudenberger, 1974). These emotional factors

have also been found to contribute to risky behaviors such as increased and excessive alcohol and drug use, as well as increasing frustration and rigid attitudes toward work and people (Daley, 1979; Freudenberger, 1974; Maslach, 1982).

Physical effects of burnout have ranged from headaches and insomnia to gastrointestinal upset, decreased immune system function, musculoskeletal disorders and physical exhaustion (Freudenberger, 1974; Maslach, 1982; Pines, Aronson, & Kafry, 1981).

The combination of the physical and emotional symptoms of the burnout condition can result in changes in one's values, attitudes, beliefs and area of practice as well as straining both personal and professional relationships. The result is increasing avoidance and isolation by the burnout sufferer, resulting in increasing absenteeism and job turnover (Carrol & White, 1982; Freudenberger, 1974).

#### *Methods for Measurement of Burnout*

Literature demonstrates a variety of measures of the burnout syndrome (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Demerouti, Bakker, Vardakou, & Kantas, 2002; Halbesleben & Demerouti, 2005; Maslach, Schaufeli, & Leiter, 2001; Pines & Aronson, 1988; Pines, Aronson, & Kafry, 1981; Schaufeli & Enzmann, 1998; Schaufeli, Enzmann, & Girault, 1993; Taylor & Barling, 2004;). The methods for measuring burnout have ranged from strict observational (Freudenberger, 1974) to quantitative in nature (Bakker, Demerouti, & Verbke, 2004; Maslach & Jackson, 1981; Pines, Aronson, & Kafry, 1981). The reliability and validity of burnout instruments such as the Burnout Measure (BM; Pines, Aronson, & Kafry, 1981), Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981) and the Oldenburg Burnout Inventory

(OLBI; Bakker, Demerouti, & Verbke, 2004) have been questioned, and all have been found to measure differing aspects of burnout based upon the theoretical definitions of burnout which were used to construct the instruments (Halbesleben & Demerouti, 2005; Schaufeli & Enzmann, 1998; Schaufeli, Enzmann, & Girault, 1993). There currently is no single instrument used to clinically diagnose burnout, with the measures taken from various instruments simply utilized to measure various aspects of the theoretical constructs of burnout (Schaufeli & Enzmann, 1998).

### *Burnout in Athletic Training and Related Professions*

Much of the literature published regarding burnout and athletic trainers and the athletic training profession has been anecdotal in nature or has been structured as a general review of the burnout syndrome with implications for athletic trainers (Gieck, 1984, 1986; Gieck, Brown, & Shank, 1982; Vergamini, 1981). Five published research studies in particular have focused on burnout and athletic trainers (Campbell, Miller, & Robinson, 1985; Capel, 1986, 1990; Hendrix, Acevedo, & Herbert, 2000; Pitney, Ilsley, & Rintala, 2002), with only one focusing exclusively on burnout and athletic training education program directors (Walter, Van Lunen, Walker, Ismaeli, & Onate, 2009).

Campbell, Miller, and Robinson (1985) examined stress, burnout and demographics of 221 athletic trainers attending the 1984 National Athletic Trainers' Association convention. Using a self-designed and validated survey instrument, the researchers found that most athletic trainers in their sample who exhibited signs of burnout were likely to be in the head athletic trainer position, female, aged 28-31 years, without children, and, if married, experiencing domestic unhappiness. In a study of stress

and burnout in higher education, females were also found to experience higher levels of burnout than male counterparts (Doyle & Hind, 1998).

More than one third (35%) of the respondents in the Campbell, Miller, and Robinson (1985) study had also been at their current place of employment for less than 4 years. Combined with the fact that a high number of total respondents (66.4%) were considering a job change, and more than half of those considering a job change were also classified as experiencing burnout, this is suggestive of a link between burnout and attrition in the athletic training profession. In a study of 99 athletic trainers who had left the profession, Capel (1990) found that the prime reasons those individuals left the profession included stressors such as poor working conditions, uncertainty and conflict within their athletic training position, and little freedom to make decisions which invariably led to increased burnout and attrition from the profession. An earlier study of burnout among athletic trainers, also conducted by Capel (1986), found that athletic trainers' burnout arose from factors similar to those reported as contributors to the stress and burnout of those who later left the profession (role conflict, role ambiguity, external locus of control). To support these theories in other areas of education, Kaufhold, Alvarez, and Arnold (2006) found that special education teachers in Texas schools were found to have higher levels of burnout resulting from lack of educational resources and decision-making opportunities. Friesen and Sarros (1989), however, found that role clarity was not a factor for any dimension of burnout in their study of teachers and administrators from an urban public school district.

Hendrix, Acevedo, and Herbert (2000) studied 118 certified athletic trainers working in the NCAA division one (D-I) setting. In this study, the researchers measured



hardiness, social support, and athletic training issues and linked these to measures of perceived stress and burnout. The researchers discovered a significant link between an athletic trainer's perceived stress and burnout factors.

Walter, Van Lunen, Walker, Ismaeli, and Onate (2009) analyzed burnout among 249 directors of CAATE accredited athletic training education programs using the Maslach Burnout Inventory and found higher levels of emotional exhaustion among females and those who were on the tenure track but not yet tenured. The Walter et al. study also found a statistically significant negative relationship at the  $p < .001$  level between emotional exhaustion as measured by the Maslach Burnout Inventory and program director age, years of program director experience and years in the current program director position.

Studies have also measured burnout among healthcare (Glasberg, Eriksson, & Norberg, 2007) nursing (Greenglass & Burke, 2003; Taylor & Barling, 2004) and counselor (Bakker, Van Der Zee, Lewig, & Dollard, 2006; Wilkerson & Bellini, 2006) populations, which may be considered closely related to the athletic trainer's clinician role.

In the study of healthcare workers, Glasberg, Eriksson, and Norberg (2007) studied 423 healthcare providers in Norway, measuring demographics, items related to conscience, and levels of burnout in an attempt to connect burnout and conscience. The researchers in this study found that not living up to others' expectations and not providing adequate care were significantly related to dimensions of burnout. Taylor and Barling (2004) also found inadequate resources and services to be contributors to stress and burnout, as well as organizational and interpersonal factors. Likewise, Bakker et al.

(2006) studied 80 volunteer counselors working with terminally ill patients and discovered a significant relationship between personality factors such as extraversion, intellect, autonomy, and emotional stability and burnout. Wilkerson and Bellini (2006) also found six organizational factors significantly linked to emotional exhaustion and depersonalization of school counselors on the Maslach Burnout Inventory Scale. The applicability of these studies to athletic training education program directors is limited, however, as the role of the athletic training education program director shifts from clinician to educator (Perkins & Judd, 2001).

### *Summary*

This chapter presented sections detailing the history of the athletic training profession and education reform, the changing role of the athletic training education program director, theoretical and conceptual frameworks of burnout, and conditions related to burnout in athletic training and related professions.

## Chapter III

### Study Procedures

#### *Introduction*

This chapter details the research procedures and methods to be utilized within this study. The procedures and methods are organized into categories of: research design, instrumentation, data collection procedure, data analysis procedure, and a summary of the procedures and methods.

#### *Research Design*

This study was quantitative in nature and consisted of an ex post facto design. The research design and proposal was reviewed by the University of Dayton Institutional Review Board for Human Subjects and granted exemption from human subject regulations. Exemption documentation can be found in Appendix A. The methodology utilized in this study allowed for the inclusion of the full population of program directors of CAATE accredited entry-level athletic training education programs. This study allowed for the measurement of athletic training education program director demographics as well as providing examination and measurement of factors influencing program director burnout, including role conflict, role ambiguity and locus of control. The research design did not allow for examination of interpersonal influences of burnout or provide individual qualitative case studies of burnout.

To allow the development of a current profile of athletic training education program directors, and because personal characteristics of the program director may contribute to burnout, one set of independent variables in this study was athletic training education program director demographics. Capel (1986) and Campbell, Miller, and Robinson (1985) examined athletic trainer attributes and demographics as predictors of burnout. Athletic training education program director demographics selected for inclusion in this study were inspired by the previous work of Capel (1986) and Campbell, Miller, and Robinson (1985). The athletic training education program director demographics included in this study were age, gender, length of experience as a certified athletic trainer, length of experience as an educator, length of experience as a program director, length of experience in current position, level of education, non-academic (clinical and other service) responsibilities, availability of administrative support (existence of clinical coordinator position), academic rank, and tenure status. These demographics were included as independent variables.

The second and third independent variables for this study were role conflict and role ambiguity. Studies have shown linkage of role conflict, role ambiguity and burnout among teachers at the secondary and elementary levels (Byrne, 1994; Schwab & Iwanicki, 1982), as well as among athletic trainers (Capel, 1986).

A fourth independent variable included in this study was the Locus of Control for athletic training education program directors. Studies have shown linkage of Locus of Control and burnout among athletic trainers (Capel, 1986) and among secondary school teachers (Capel, 1987).

The dependent variables for this study were exhaustion, disengagement from work and overall burnout characterized by a combination of exhaustion and disengagement from work.

### *Null Hypotheses*

H<sub>01</sub>: There is no statistical relationship between athletic training education program director demographics and burnout among athletic training education program directors.

H<sub>02</sub>: There is no statistical relationship between athletic training education program institutional classification and burnout among athletic training education program directors.

H<sub>03</sub>: There is no statistical relationship between role conflict and burnout among athletic training education program directors.

H<sub>04</sub>: There is no statistical relationship between role ambiguity and burnout among athletic training education program directors.

H<sub>05</sub>: There is no statistical relationship between Locus of Control and burnout among athletic training education program directors.

### *Research Hypotheses*

H<sub>a1</sub>: There is a statistically significant relationship between athletic training education program director demographics and burnout among athletic training education program directors.

H<sub>a2</sub>: There is a statistically significant relationship between athletic training education program institutional classification and burnout among athletic training education program directors.

H<sub>a3</sub>: There is a statistically significant relationship between role conflict and burnout among athletic training education program directors.

H<sub>a4</sub>: There is a statistically significant relationship between role ambiguity and burnout among athletic training education program directors.

H<sub>a5</sub>: There is a statistically significant relationship between Locus of Control and burnout among athletic training education program directors.

### *Population*

The population for this study was all directors of CAATE accredited entry-level undergraduate athletic training education programs. At the time of this study, there were 343 entry-level undergraduate athletic training education programs accredited by CAATE, all of which were required to designate an individual as program director (CAATE, 2008).

All 343 athletic training education program directors were contacted via their email address on file with and included in the CAATE directory (CAATE, 2008). The directory of athletic training education program directors is a public document listed on the CAATE Web site. All individuals listed and designated by the CAATE organization as being directors of CAATE accredited entry-level undergraduate athletic training education programs were contacted for inclusion in this study. The full population was contacted in an effort to decrease the probability of Type I error.

### *Instrumentation*

A demographic sheet was prepared to collect athletic training education program director demographics, including items such as age, highest level of education attained, length of experience as a certified athletic trainer and program director and load breakdown, as well as institutional classification information based upon the institution's NCAA or NAIA affiliation. Participants also received the English language version of the Oldenburg Burnout Inventory (OLBI) instrument developed by Bakker, Demerouti, and Verbeke (2004), the Role Questionnaire (Rizzo, House, & Lirtzman, 1970), and the Rotter Internal-External Locus of Control Scale (Rotter, 1966).

*Oldenburg Burnout Inventory.* The OLBI is a 16-item instrument which includes two dimensions of burnout, exhaustion (eight items) and disengagement from work. The instrument is based on a 4-point scale ranging from *strongly disagree* (1) to *strongly agree* (4). As there is no clinical diagnosis score on any burnout instrument, the OLBI seeks to demonstrate the strength of burnout factors with scores closer to 4 suggesting higher levels of burnout. The factorial validity of the OLBI was confirmed with the finding that the two factors of exhaustion and disengagement from work are independent yet related factors with an estimated correlation of .52 (Demerouti, Bakker, Vardakou, & Kantas, 2002). The construct validity of the OLBI was confirmed using the multi-trait, multi-method analysis of the English version of the OLBI when compared with the Maslach Burnout Inventory-General Survey (Halbesleben & Demerouti, 2005).

The original OLBI instrument's reliability of the measures of exhaustion (Cronbach's  $\alpha = .71$ ) and disengagement from work (Cronbach's  $\alpha = .81$ ) was first determined by Demerouti and Nachreiner (1996). The instrument was then further refined

by Bakker, Demerouti, and Verbeke (2004) with the addition and rephrasing of one item. With this revision, further reliability testing among 232 Greek employees found the Cronbach's  $\alpha = .73$  for measures of exhaustion and Cronbach's  $\alpha = .83$  for measures of disengagement from work (Demerouti, Bakker, Vardakour, & Kantas, 2002). The English version of the OLBI was administered to 2,431 English speaking American workers and found to be a consistent measure of exhaustion and disengagement from work with Cronbach's  $\alpha$  levels ranging from .74 (test 1) to .79 (test 2) for exhaustion and .76 (test 1) to .83 (test 2) for disengagement from work (Halbesleben & Demerouti, 2005). Halbesleben and Demerouti also found the test-retest reliability for the OLBI to demonstrate correlation between the first and second tests ( $r = .51, p < .001$  for exhaustion;  $r = .34, p < .01$  for disengagement from work).

Some example questions from the OLBI include items such as "I always find new and interesting aspects in my work" (disengagement) and "During my work I often feel emotionally drained" (exhaustion).

### *Role Questionnaire*

The Role Questionnaire (Rizzo, House, & Lirtzman, 1970) is a 30-item scale designed to measure both role conflict (15 items) and role ambiguity (15 items) using a 7-point scale ranging from *very false* (1) to *very true* (7). Role conflict is operationally defined as an "incompatibility" or "incongruence" within a position (Rizzo, House, & Lirtzman, 1970, p. 155) while role ambiguity is defined as an uncertainty within a role or position (Rizzo, House, & Lirtzman, 1970). There is no clinical diagnosis score for either role conflict or role ambiguity. Therefore, scores on the Role Questionnaire are representative of the strength of the constructs, with scores closer to 7 representing



increased levels of role conflict or role ambiguity. Research by Schuler, Aldag, and Brief (1977) supported the validity and reliability of the Role Questionnaire as a measure of role conflict and role ambiguity. In their study, Schuler, Aldag, and Brief studied six separate samples using the Role Questionnaire and found role conflict Cronbach's  $\alpha$  levels of reliability to range from .56 to .82 and role ambiguity Cronbach's  $\alpha$  levels of reliability from .63 to .87. Construct validity of the Role Questionnaire was confirmed by a significant coefficient of concordance ( $W = .61$ ;  $X^2 = 32.94$ ;  $p < .001$ ) across Schuler, Aldag, and Brief's six samples.

Examples of items from the Role Questionnaire include role ambiguity items such as "I feel certain about how much authority I have" and "I know what my responsibilities are" and role conflict items such as "I work under incompatible policies and guidelines" and "I receive an assignment without adequate resources and materials to complete it."

*Rotter Internal-External Locus of Control Scale.* The Rotter Internal-External Locus of Control Scale (Rotter, 1966) is a 29-item forced choice instrument with six distracter items. The resulting 23-item scale is used to measure the subject's beliefs of internal and external influencers of control. Higher numbers of external choices result in an external locus of control. Lefcourt (1976) found that those individuals with an internal locus of control cope with and manage stress more successfully. Rotter (1966) reported a reliability  $\alpha$  level of .70 among 400 college students and Cherlin and Bourque (1974) reported reliability  $\alpha$  levels of .80 among a sample of 161 college students and .71 among a general population sample of 100 individuals. Rotter (1966) reported a test-retest reliability correlation of  $r = .72$  among a group of 60 college students after 1 month. Validity of the Rotter Internal-External Locus of Control Scale was determined by

correlating the items on the Rotter Internal-External Locus of Control Scale with the Marlowe-Crowne Social Desirability Scale. The relatively low correlation ( $r = -.21$ ) between the Rotter Internal-External Locus of Control Scale and the Marlowe-Crowne Social Desirability Scale among 306 college students demonstrated that the results of the Rotter Internal-External Locus of Control Scale were not attributed to social acceptance or desirability as measured by the Marlow-Crowne Social Desirability Scale (Rotter, 1966).

Some items on the Rotter Internal-External Locus of Control Scale include external choices such as "Many of the unhappy things in people's lives are partly due to bad luck" and internal choices such as "People's misfortunes result from the mistakes they make."

#### *Data Collection Procedure*

The full population of athletic training education program directors was contacted via the electronic mail address on record with the CAATE organization. The initial electronic message included information briefly describing the purpose and nature of the research as well as instructing potential participants that their participation in this study would be strictly voluntary. The electronic mail also included a Web link to an external Web site which included sections on athletic training education program director demographic information, the OLBI instrument (Bakker, Demerouti, & Verbeke, 2004), the Role Questionnaire (Rizzo, House, & Lirtzman, 1970) and the Rotter Internal-External Locus of Control Scale (Rotter, 1966). Participants were instructed to allow approximately 30 minutes for the completion of testing.

### *Data Analysis Procedures*

Data collected as part of this study were tabulated and entered into the Statistical Package for the Social Sciences (SPSS) version 16.0 software by the researcher.

Individual OLBI (Bakker, Demerouti, & Verbeke, 2004) data were tallied and the resulting values assigned to the respective constructs of exhaustion and disengagement from work. The values assigned to these constructs were also used to calculate individual and overall burnout value. Higher scores suggest higher levels of each burnout construct (Halbesleben & Demerouti, 2005). These values were used in the statistical analysis.

Individual scores on the Rotter Internal-External Locus of Control scale (Rotter, 1966) were tabulated and resulted in a classification of internal or external locus of control. Rotter (1966) designed the Rotter Internal-External Locus of Control scale to have the total number of external choices summed, with a higher number of external choices equating to an external locus of control, and a lower number of external choices associated with an internal locus of control. The score calculated from this scale was used in the statistical analysis.

Data collected using the Role Questionnaire (Rizzo, House, & Lirtzman, 1970) were tallied to assign numeric values to the constructs of role conflict and role ambiguity. Scores on even numbered items were utilized to determine the role ambiguity score and scores on odd numbered items were utilized to determine the role conflict score. These values were used in the statistical analysis.

Data were first classified based upon the institutional NCAA or NAIA affiliation as reported by respondents. Determination of means, standard deviations, high scores, low scores and other descriptive statistics were calculated for both the full data set and

for each of the four institutional classification groups. The alpha level of significance for all statistical procedures included in this study was set at the  $p < .01$  level to decrease the probability of Type I error.

To address the first research question of the effect of athletic training education program institution classification upon athletic training education program director burnout dimensions, institutional classification data were analyzed by analysis of variance (ANOVA). This ANOVA was used to examine institutional classification relationship to burnout as measured by the OLBI. The ANOVA served to demonstrate whether the mean value difference of burnout varied significantly when considering variation in institutional classification. The proportion of variance accounted for was calculated for each variable.

To address the research questions pertaining to athletic training education program director demographics, institutional classification, role conflict, role ambiguity and Locus of Control, Pearson product-moment correlations were conducted to determine if statistically significant relationships existed among these independent variables and the dependent burnout variables of exhaustion, disengagement from work, and total burnout as measured by the OLBI. Nominal demographic variables such as gender were included in the Pearson product-moment correlation through the creation of dummy variables, a coding procedure utilized to indicate the presence or absence of a condition. The dummy variable for gender is 1 for presence of "maleness" and 0 for absence of "maleness," with the assumption that absence of "maleness" equates to "femaleness" (Kachigan, 1991). The complete correlation matrix will be reported in Appendix B. From these Pearson product-moment correlation calculations, the effect size was calculated for items with an

$r$  value equal to or greater than .70 by squaring the  $r$  value. The  $r$  value equal to or greater than .70 was used because the effect size for these items account for approximately 50% of the variation in the burnout variable. The greater the  $r^2$  value, the greater the influence of the independent variable on burnout (Heiman, 2006).

Items found to have an effect size of approximately 50% or greater ( $r = .70$  or above) were analyzed via multiple regression. The purpose of this multiple regression analysis was to determine the degree of influence of the independent variable items with an effect size equal to or greater than 50% upon the dependent variable of burnout. By determining this degree of influence through multiple regression, the variance of burnout scores was accounted for, thus decreasing the risk of errors of prediction (Kachigan, 1991).

Results of the data analysis will be reported in the fourth chapter of the dissertation with discussion to follow in the fifth chapter.

### *Summary*

Chapter Three described the methods and procedures which will be utilized in this study. The first step was outlining the research design and the null hypotheses. Second, the population was discussed. The instrumentation for collecting data and data collection procedures were next, followed by a description of the intended methods for analysis of data collected through the methods described in this chapter. Subsequent chapters will include a report of findings and conclusions with recommendations.

## Chapter IV

### Report of Findings

#### *Introduction*

This chapter summarizes and reports the data and statistical findings for this study.

#### *Study Respondents and Demographics*

The population for this study was all directors of Commission on Accreditation of Athletic Training Education (CAATE) accredited entry-level undergraduate athletic training education programs. There are currently 343 athletic training education programs accredited by CAATE, all of which are required to designate an individual as program director (CAATE, 2007). All 343 athletic training education program directors were contacted via the email address on file with CAATE and invited to complete an online survey and questionnaire consisting of the demographic information, the Role Questionnaire, the Rotter Internal-External Locus of Control Scale, and the Oldenburg Burnout Inventory (OLBI). The text of the invitation email and instrumentation are included in Appendices C through G.

A total of 108 usable surveys were returned, for a response rate of 31.49%. Of the 108 respondents, 64 were male (59.3%), 44 were female (40.7%) with an overall group mean (*SD*) age of 41.63 (8.30) years. All respondents (100%) reported having earned at least a master's degree, with 52.8% (57) having earned a doctorate degree, 45.4% (49)

holding only a master's degree, and .02% (2) reporting holding a degree classified as "other." The tenure status of the responding program directors was 42.6% (46) tenured, 24.1% (26) not tenured but on tenure track, and 33.3% (36) not tenured and not on the tenure track. The respondents reported a mean (*SD*) of 18.1 (8.2) years certified as an athletic trainer, with a mean (*SD*) of 8.6 (7.6) total years in an athletic training education program director role. The athletic training education program directors reported spending a mean (*SD*) of 6.7% (12.6) of their time practicing clinically, 53.8% (18.19) of their time on academics, 23.8% (14.4) of time performing administrative tasks, 9.1% (11.0) of time performing university service, 6.3% (8.6) of time on scholarship, and .37% (2.3) of time was classified as other or not reported.

Table 1

*Program Director Age and Experience (N=108)*

	Mean	SD	Minimum	Maximum	Range
Age	41.6	8.3	28	65	37
Years certified	18.1	8.2	5	41	36
Years current PD	7.2	6.3	1	31	30
Total years PD experience	8.6	7.6	1	35	34

Table 2

*Gender of Participants (N=108)*

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	<u>Frequencies</u>	<u>Percentage</u>
Male	64	59.3%
Female	44	40.7%

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Table 3

*Program Director Educational Background (N=108)*

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	<u>Frequencies</u>	<u>Percentage</u>
Doctoral degree	57	52.8%
Master's degree	49	45.4%
Bachelor's degree	0	0%
Other	2	1.9%

---



Table 4

*Program Director Tenure Status (N=108)*

	<u>Frequencies</u>	<u>Percentage</u>
Tenured	46	42.6%
Non-tenured (on tenure track)	26	24.1%
Non-tenured (not on tenure track)	36	33.3%

Table 5

*Program Director Workload Percentages (N=108)*

	Mean	SD	Minimum	Maximum	Range
% Clinical	6.7	12.6	0	60	60
% Academic	53.8	18.2	0	90	90
% Scholarship	6.3	8.6	0	30	30
% Administrative	23.8	14.4	0	100	100
% Service	9.1	11.0	0	55	55
% Other	.37	2.3	0	20	20

Table 6

*Clinical Coordinators within Athletic Training Education Programs (N=108)*

	<u>Frequencies</u>	<u>Percentage</u>
Have clinical coordinator	89	82.4%
No clinical coordinator	19	17.6%

Of the athletic training education program directors responding, 82.4% (89) reported that their athletic training education program had an individual designated as the coordinator of clinical education and the mean (*SD*) number of athletic training education program faculty was 3.0 (1.7). The mean (*SD*) number of undergraduate students enrolled in the athletic training education programs of the responding program directors was 30.5 (13.5). These data are demonstrated in Table 7.

Table 7

*ATEP Faculty and Undergraduate Student Population (N=108)*

	Mean	SD	Minimum	Maximum	Range
ATEP faculty count	3.0	1.7	1	9	8
Undergraduate student count	30.5	13.5	5	51	46

Respondents reported 41 programs (38%) at NCAA Division I member institutions, 33 programs (30.6%) at NCAA Division II member institutions, 21 programs (19.4%) at NCAA Division III member institutions, and 13 programs (12%) at NAIA member institutions. Regarding the concept of burnout, 38% (41) of program directors reported that they felt they suffered from burnout, while 62% (67) program directors reported that they did not feel that they were suffering from burnout.

Table 8

*Institutional Classifications (N=108)*


---

	<u>Frequencies</u>	<u>Percentage</u>
NCAA Division I	41	38%
NCAA Division II	33	30.6%
NCAA Division III	21	19.4%
NAIA	13	12%

---

*Oldenburg Burnout Inventory*

The Oldenburg Burnout Inventory (OLBI) data were tallied, with the resulting values assigned to the respective constructs of exhaustion and disengagement from work. The OLBI is based on a 4-point scale. The instrument does not provide for a clinical diagnosis of burnout or the burnout constructs but simply measures the strength of each burnout constructs with values closer to 4 representing higher levels of exhaustion, disengagement from work and total burnout. The mean (*SD*) value for the construct of exhaustion was 2.7 (.53). The mean (*SD*) value for the construct of disengagement from work was 2.7 (.57). The overall mean (*SD*) total burnout value for this study was 2.7 (.52). Cronbach's  $\alpha$  reliability scores for the OLBI were .84 for exhaustion and .89 for disengagement from work, which exceeds the typical range of scores for this instrument. The full descriptive statistics for the OLBI and its related constructs are reported in Table 9.

Table 9

*Oldenburg Burnout Inventory Descriptive Statistics (N=108)*

	Mean	SD	Minimum	Maximum
OLBI disengagement	2.7	.53	1	4
OLBI exhaustion	2.7	.57	1.1	4
OLBI total	2.7	.52	1.1	4

*Based on 4 point scale, 1-Strongly Disagree 4-Strongly Agree*

*Role Questionnaire*

Role conflict and role ambiguity, as measured by the Role Questionnaire are based on a 7-point scale, with values closer to 7 representing higher levels of both role conflict and role ambiguity. Data showed a mean (*SD*) role conflict score of 4.1 (.56) and a mean (*SD*) role ambiguity score of 4.2 (.44). As scores approach 7, the strength of the level of experienced role conflict and role ambiguity increases. Cronbach's  $\alpha$  reliability scores for the Role Questionnaire were .50 for role conflict and .49 for role ambiguity which falls outside of the lower reliability ranges for this instrument. The full descriptive statistics for the Role Questionnaire are reported in Table 10.

Table 10

*Role Questionnaire Descriptive Statistics (N=108)*

	Mean	SD	Minimum	Maximum
Role conflict	4.1	.56	2	5.4
Role ambiguity	4.2	.44	3	5.4

*Based on a 7-point scale, 1-Very False 7-Very True*

### *Rotter Internal-External Locus of Control Scale*

Locus of control, as measured by the Rotter Internal-External Locus of Control Scale, involves the tally of external locus of control choices. The 23-item scale is used to measure the subject's beliefs of internal and external influencers and control. The greater the number of external choices made by the respondent, the higher the likelihood that the individual will exhibit an external locus of control. The respondents for this study demonstrated a mean (*SD*) of 8.4 (3.6) external choices. The lower the number of external choices selected, the greater the internal locus of control of the respondents. Cronbach's  $\alpha$  reliability scores for the Rotter Internal-External Locus of Control Scale was .72, which falls within the typical range of instrument reliability. The full descriptive statistics for the external choices reported by the Rotter Internal-External Locus of Control Scale are reported in Table 11.

Table 11

#### *Locus of Control Scale Descriptive Statistics (N=108)*

	Mean	SD	Minimum	Maximum
Locus of control	8.4	3.6	1.0	18.0
<i>Based on total number of external choices</i>				

#### *Program Director Demographics and Burnout*

Pearson product-moment correlation analysis was conducted to address the second research question pertaining to athletic training education program director demographics in an effort to determine if statistically significant relationships exist among these independent variables and the dependent burnout variables of exhaustion, disengagement from work and overall burnout as measured by the OLBI.

Table 12

*Correlations of Program Director Demographics and Burnout (N=108)*

	OLBI total	OLBI exhaustion	OLBI disengagement
Age	.138	.118	.143
Gender	-.003	-.108	.111
Education level	-.036	-.012	-.057
Years certified as ATC	.171	.131	.194
Years as program director at current institution	.156	.161	.131
Total years as program director at all institutions	.183	.171	.173
Tenure status	.061	.060	.054
Perceived burnout	.664**	.670**	.578**

\*\* . Correlation is significant at the .01 level (2-tailed).

The Pearson product-moment correlation analysis demonstrated a statistically significant correlation ( $r = .670, p < .01$ ) between exhaustion and program director perceived burnout with higher levels of exhaustion associated with higher levels of perceived burnout among program directors.

There was also found to exist a statistically significant correlation ( $r = .578, p < .01$ ) between disengagement from work and program director perceived burnout, with

higher levels of disengagement from work associated with higher levels of perceived burnout among program directors.

Finally, a statistically significant correlation ( $r = .664, p < .01$ ) was found between total burnout and program director perceived burnout, with higher levels of total burnout associated with higher levels of perceived burnout among program directors.

No other program director demographic variables were found to have a statistically significant relationship to the dependent variables of the burnout constructs of exhaustion, disengagement from work and total burnout as measured by the OLBI. The full correlation matrix is presented in Appendix B.

#### *Athletic Training Education Program Classification and Burnout*

A one-way analysis of variance was conducted to determine the influence of institution classification on levels of the burnout constructs of exhaustion and disengagement from work, and total burnout as measured by the Oldenburg Burnout Inventory (OLBI). Institutions were divided into four groups according to classification information reported by the subjects (Group 1: NCAA Division I,  $N = 41$ ; Group 2: NCAA Division II,  $N = 33$ ; Group 3: NCAA Division III,  $N = 21$ ; Group 4: NAIA,  $N = 13$ ). The descriptive statistics for total burnout at each level of institutional classification are reported in Table 13. There were no statistically significant differences at the  $p < .01$  level in the OLBI scores for total burnout or the burnout constructs of exhaustion and disengagement from work among the four groups. The full results of the analysis of variance are reported in Table 14.

Table 13

*Oldenburg Burnout Inventory Total Burnout Descriptive Statistics by Institutional Class**(N = 108)*

	<i>N</i>	Mean	SD	Minimum	Maximum
NCAA Division I	41	2.5	.51	1.3	3.8
NCAA Division II	33	2.5	.42	1.6	3.4
NCAA Division III	21	2.5	.57	1.1	3.4
NAIA	13	2.6	.57	1.6	3.6

Table 14

*Analysis of Variance for Burnout by Institution Classification (N=108)*

		Sum of squares	df	Mean square	F	Sig.
OLBI total	Between groups	.07	3	.02	.09	.97
	Within groups	28.6	104	.28		
	Total	28.6	107			
OLBI exhaustion	Between groups	.128	3	.04	.13	.94
	Within groups	34.6	104	.33		
	Total	34.7	107			
OLBI disengagement	Between groups	.11	3	.04	.13	.94
	Within groups	29.8	104	.29		
	Total	29.9	107			



### *Role Conflict and Burnout*

To measure the relationship between the dependent variable burnout constructs of exhaustion, disengagement from work and total burnout, as measured by the OLBI, and the independent variable of role conflict, as measured by the Role Questionnaire, Pearson product-moment correlation analysis was conducted.

A statistically significant negative correlation ( $r = -.284, p < .01$ ) was found between the burnout construct of exhaustion and role conflict, meaning that when role conflict is lower, then exhaustion levels tend to be higher.

A statistically significant negative correlation ( $r = -.430, p < .01$ ) was also found to exist between disengagement and role conflict, meaning that when role conflict is lower disengagement levels tend to be higher.

Finally, there was a statistically significant negative correlation ( $r = -.376, p < .01$ ) between total burnout and role conflict, meaning that when role conflict is lower, total burnout tends to be higher. The Pearson-product moment correlations for role conflict and burnout can be found in Table 15.

### *Role Ambiguity and Burnout*

To measure the relationship between the dependent burnout constructs of exhaustion, disengagement from work and total burnout, as measured by the OLBI, and the independent variable of role ambiguity, as measured by the Role Questionnaire, Pearson product-moment correlation analysis was conducted.

There was a statistically significant correlation ( $r = .403, p < .01$ ) between the dependent burnout variable of exhaustion and independent variable role ambiguity meaning that when role ambiguity is higher, exhaustion levels tend to be higher.

There was also a statistically significant correlation ( $r = .443, p < .01$ ) between the dependent burnout variable of disengagement from work and independent variable role ambiguity meaning that when role ambiguity is higher, disengagement from work levels tend to be higher.

Finally, a statistically significant correlation ( $r = .448, p < .01$ ) was found between the dependent burnout variable of total burnout and independent variable role ambiguity, meaning that when role ambiguity is higher, total burnout tends to be higher. The Pearson-product moment correlations for role ambiguity and burnout can be found in Table 15.

#### *Locus of Control and Burnout*

Pearson product-moment correlation analysis was conducted to examine the statistical relationship between the dependent burnout constructs of exhaustion, disengagement from work and total burnout, as measured by the OLBI, and the independent variable of locus of control, as measured by the Rotter Internal-External Locus of Control Scale. There were no statistically significant relationships at the  $p < .01$  level between exhaustion ( $r = -.213, p > .01$ ), disengagement from work ( $r = .149, p > .01$ ), and total burnout ( $r = -.193, p > .01$ ). The Pearson product-moment correlations for locus of control and burnout can be found in Table 15.

Table 15

*Correlation of Role Conflict, Role Ambiguity & Locus of Control with Burnout (N=108)*

	OLBI total	OLBI exhaustion	OLBI disengagement
Role conflict	-.376**	-.284**	-.430**
Role ambiguity	.448**	.403**	.443**
Locus of control	-.193	-.213	-.149

\*\* . Correlation is significant at the .01 level (2-tailed).

#### *Independent Variable Influences on Burnout*

Multiple regression analysis was planned to determine the degree of influence of the independent variable items with an effect size of approximately 50% or greater ( $r = .70$  or above) upon the dependent variable of OLBI total burnout. Using the results of the Pearson product-moment correlations, there were no independent variable items with an effect size of 50% or greater when considering the dependent variable of OLBI total burnout. Therefore, the multiple regression analysis was not conducted.

#### *Other Statistically Significant Correlations*

Pearson product-moment correlation revealed statistically significant relationships at the  $p < .01$  level between several factors not included as part of the research hypotheses of this study. Non-hypotheses related statistically significant relationships included negative Pearson product-moment correlations between program director perceived burnout and role conflict ( $r = -.248, p < .01$ ), percentage of time spent in clinical practice and role conflict ( $r = -.283, p < .01$ ), and female gender and role conflict ( $r = -.254, p < .01$ ). Statistically significant negative Pearson product-moment

correlations were also found between program director education level and tenure status ( $r = -.308, p < .01$ ), percentage of time spent in clinical practice ( $r = -.313, p < .01$ ) and institutional class ( $r = -.278, p < .01$ ).

The complete correlation matrix for the other non-hypothesis related data collected as part of this study is included in Appendix B.

### *Summary*

This chapter summarized data and reported the statistical analysis of the data collected as part of this study. Summary demographic data and the results of Pearson product-moment correlation and one-way analysis of variance tests as applicable to the research hypotheses were reported. A study summary, conclusions, results and implications will be discussed and recommendations for future research will be made in the next chapter.

## Chapter V

### Summary, Conclusions, Implications and Recommendations

#### *Introduction*

This chapter utilizes data reported in the previous chapter as a basis for conclusions relative to the research hypotheses and related literature and to make recommendations for future research. First, an overview of the significant findings will be made, with data summarized and conclusions relative to the research null and alternative hypotheses discussed. Attention will also be given to the limitations and outcomes of this study. Finally, the implications of the findings of this study on current practice and recommendations for future research will be made.

#### *Overview of Significant Findings*

The primary purpose of this study was to determine the factors which influence the level of professional burnout among program directors working within CAATE accredited entry-level athletic training education programs. Only program director perceived burnout and role ambiguity presented a positive statistically significant ( $p < .01$ ) Pearson product-moment correlation to total burnout and the burnout constructs of exhaustion and disengagement from work. Role conflict presented a negative statistically significant ( $p < .01$ ) Pearson-product moment correlation to total burnout and the burnout constructs of exhaustion and disengagement from work.

## *Conclusions*

*Program director demographics and burnout.* Comparison of the demographics of the responding sample to the demographics of the full population of athletic training education program directors could not be made, as the Commission on the Accreditation of Athletic Training Education (CAATE) does not report this information. The program director demographics reported by the respondents to this study demonstrated some differences, however, when compared to earlier studies of athletic trainers and burnout syndrome. Capel (1986) reported a sample group with a mean age of 31.3 years, 64% with a master's degree, 63% male to 37% female representation and a mean of 6.4 years certified, while Campbell, Miller and Robinson (1985) reported a mean age of 35, 70% male to 30% female representation, and 35% of respondents having been in their current position between 1 and 3.9 years.

The demographics in these earlier studies differed from the current study in that they focused on a sampling of athletic trainers across various areas of practice and employment, making a comparison of demographic factors relatively difficult. Perkins and Judd (2001) published results of a study of athletic training education program director dilemmas, reporting a sample which was 61% male and 39% female with a median age of 42 years, a median of 18.5 years as a certified athletic trainer and a median of 9 years of experience as a program director. It was also reported that 43% of the program directors responding to their study held a doctoral degree and 42% were clinically active as an athletic trainer, with the majority (66.5%) of time dedicated to academics versus athletics (33.5%) responsibilities. Perkins and Judd also reported 26%

of program directors were tenured, 26% were on the tenure track, and 20% were non-tenured.

Likewise, Walter, Van Lunen, Walker, Ismaeli and Onate (2009) conducted a study of athletic training education program director burnout with a sample reporting 41.8% male and 58.2% female with a mean age of 41.2 years, 7.8 years of program director experience and 17.3 years of athletic training experience. The program directors responding to the Walter et al. study also reported a rate of 47.8% holding a masters degree, 49.4% holding a terminal degree, and 19.7% working toward a terminal degree. Walter et al. reported that 42.2% of program directors were active in the clinical setting and that 31.7% of respondents were tenured, 31.7% on the tenure track and 33.7% were not on the tenure track.

The demographics represented in the Walter et al. (2009) and the Perkins and Judd (2001) studies are more consistent with the respondent demographics reported for this study, where 52.8% (57) of program directors held a doctoral level degree and 42.6% (46) were tenured, 24.1% (26) non-tenured but on the tenure track, and 33.3% (36) not tenured and not on the tenure track. The respondents in this study showed a decline in clinical responsibilities compared to the responses reported in the 2001 Perkins and Judd study and the 2009 Walter et al. study in that only 32.4% reported having clinical responsibilities while 67.6% of program directors reported no clinical responsibilities at all. These results suggest that program director demographics have remained relatively constant since these earlier studies, with the major changes being the increase in those program directors that are not tenured or on the tenure track and the continuing decrease in the number of program directors reporting having clinical responsibilities. This

decrease in clinical responsibilities is supported by other research which cites the difficulty of simultaneously fulfilling both the academic and clinical roles, gradually leading to a decrease in the daily clinical involvement by athletic training education program directors (Leard, Booth & Johnson, 1991; Perkins & Judd, 2001).

According to Pines and Aronson (1988), those who are younger and newer to their career area tend to exhibit signs of burnout more frequently than those who are older and have been working in their fields longer. This could serve as an explanation for the relatively low levels of the burnout constructs of exhaustion, disengagement from work and total burnout in this study, as the majority of individuals currently serving in program director positions reported a mean 18.1 years in practice as a certified athletic trainer and a mean 8.63 years of total program director experience.

*Role conflict, role ambiguity, locus of control and burnout.* Psychological factors such as role conflict and role ambiguity have also been found to be correlated with the existence of the burnout condition (Schaufeli & Enzmann, 1998). Capel (1986) found that athletic trainers' burnout arose from factors similar to those reported as contributors to stress and burnout of those who later left the profession (role conflict, role ambiguity, external locus of control). The results of this study support these earlier works in that role conflict and role ambiguity both demonstrated statistically significant Pearson product-moment correlations at the  $p < .01$  level with the burnout constructs of exhaustion, disengagement from work and total burnout as measured by the OLBI. Friesen and Sarros (1989), however, found that role clarity was not a factor for any dimension of burnout in their study of teachers and administrators from an urban public school district.



Glass and McKnight (1996) reported that the personality characteristic of an external locus of control was a contributing factor to both depersonalization and emotional exhaustion. These results were not supported by this study, as there were no statistically significant relationships between locus of control and any of the burnout constructs of exhaustion, disengagement from work and total burnout.

In a study of athletic trainers working in the NCAA division one (D-I) setting, Hendrix, Acevedo, and Herbert (2000) discovered a significant link between an athletic trainer's perceived stress and burnout factors. Similarly, the data in this study demonstrated a statistically significant relationship ( $r = .664, p < .01$ ) between a program director's perceived burnout and total burnout as measured by the OLBI. Therefore, a program director's self-reflection may serve as an adequate barometer for his or her individual burnout status.

*Athletic training education program classification and burnout.* Schaufeli and Enzmann (1998) reported that workplace demographics, such as workload, client numbers, and problems were found to contribute to the manifestation of burnout. Likewise, Freudenberg (1974) theorized that symptoms of burnout prevail among those with high levels of commitment and dedication to their areas of practice. These previous works led to the hypothesized relationship between institutional classification and program director burnout. After completion of the analysis of variance, it was determined that there were no statistically significant differences between institutional classification and the existence of total burnout or the two burnout constructs of exhaustion and disengagement from work.

### *Research Questions Addressed*

The data collected and analyzed through this study served to answer the five research questions posed at the outset of this study.

In considering the first research question, which asked what relationships exist between athletic training education program institution classification and athletic training education program director burnout, no statistically significant relationships were found.

The second research question, which examined the relationship between athletic training education program director demographics and athletic training education program director burnout, was answered in that only one factor was found to be statistically significant. The program director demographic of perceived burnout was found to exhibit statistically significant correlations to the burnout constructs of exhaustion, disengagement and total burnout. No other program director demographics exhibited statistically significant relationships to the burnout constructs considered in this study.

In answering the third research question, which examined the relationship between athletic training education program director role conflict and athletic training education program director burnout, negative statistically significant correlations were found between role conflict and the burnout constructs of exhaustion, disengagement, and total burnout. This finding suggests that when role conflict is lower, the burnout tends to be higher.

The next research question considered the relationship between athletic training education program director role ambiguity and athletic training education program director burnout, resulting in statistically significant correlations between role ambiguity and exhaustion, disengagement and total burnout. This finding suggests that when role ambiguity is higher, burnout will also be higher.

Finally, the fifth research question concerning the issue of relationship between athletic training education program director Locus of Control and athletic training education program director burnout resulted in no statistically significant relationships.

#### *Rejected Null Hypotheses*

The first, third and fourth null hypotheses of this study were rejected due to the existence of statistically significant relationships following Pearson product-moment correlations.

The first null hypothesis, which asserted no statistically significant relationship between athletic training education program director demographics and burnout among athletic training education program directors was rejected because program director perceived burnout was found to exhibit statistically significant correlations between the burnout constructs of exhaustion, disengagement and total burnout.

The third null hypothesis, positing the lack of statistical relationship between role conflict and burnout among athletic training education program directors, was rejected because program director perceived burnout was found to exhibit negative statistically significant correlations between role conflict and the burnout constructs of exhaustion, disengagement and total burnout.

The fourth null hypothesis, stating that there is no statistical relationship between role ambiguity and burnout among athletic training education program directors was rejected because program director perceived burnout was found to exhibit statistically significant correlations between role ambiguity and the burnout constructs of exhaustion, disengagement and total burnout.

#### *Accepted Research Hypotheses*

The first, third and fourth research hypotheses in this study were accepted due to the existence of statistically significant relationships following Pearson product-moment correlations.

The first research hypothesis, stating that there is a statistically significant relationship between athletic training education program director demographics and burnout among athletic training education program directors, was accepted because program director perceived burnout was found to exhibit statistically significant correlations between the burnout constructs of exhaustion, disengagement and total burnout.

The third research hypothesis, which stated that there is a statistically significant relationship between role conflict and burnout among athletic training education program directors was accepted because program director role conflict was found to exhibit negative statistically significant correlations with the burnout constructs of exhaustion, disengagement and total burnout.

Finally, the fourth research hypothesis, which stated that there is a statistically significant relationship between role ambiguity and burnout among athletic training education program directors was accepted because program director role ambiguity was

found to exhibit statistically significant correlations with the burnout constructs of exhaustion, disengagement and total burnout.

### *Implications*

The purpose of this study was to develop further understanding of the factors contributing to professional burnout among athletic training education program directors of entry-level CAATE accredited athletic training education programs. The first step was to measure the dimensions of burnout experienced by program directors. Then, through exploration of multiple program director demographic factors (including age, gender, education level, years of experience as a certified athletic trainer, years of experience as a program director, workload breakdown, locus of control, role conflict and ambiguity, and perceived burnout), as well as through exploration of organizational factors (such as institutional classification, program size, faculty size, and the existence of a clinical coordinator position), an attempt was made to link these factors back to the levels of burnout measured by the Oldenburg Burnout Inventory (OLBI). The only statistically significant factors linked to total burnout, as well as the constructs of exhaustion and disengagement from work was role conflict, role ambiguity, and program director perceived burnout.

The statistically significant positive Pearson product-moment correlation between role ambiguity and all three burnout constructs suggests that the greater the ambiguity an athletic training education program director has regarding his or her role and the duties and tasks associated with that role, the greater the level of burnout experienced by the program director. Rizzo, House and Lirtzman (1970) define role ambiguity as the result

of unclear goals or objectives within a job. Therefore, to aid in decreasing the level of burnout among athletic training education program directors, it may be best practice to reduce the level of role ambiguity through development and communication of roles and responsibilities at the institutional level and through clear and concise standards and guidelines from the CAATE accrediting body.

The statistically significant negative Pearson product-moment correlation between role conflict and all three burnout constructs suggests that the greater the role conflict, the less the burnout experienced by program directors. Role conflict, as defined by Rizzo, House, and Lirtzman (1970), is incongruent tasks or goals within a position or career. This finding is interesting in that it appears that this incongruence measured as role conflict poses challenges to program directors which keeps them engaged and energized, thus decreasing the effects of burnout. It could also suggest that those program directors who have higher levels of burnout have lower levels of role conflict because they are exhausted and disengaged from their work, so incongruent tasks or goals are non-factors because the program director is professionally detached as a result of burnout.

Finally, the statistically significant positive Pearson product-moment correlation between program director perceived burnout and the three burnout constructs suggests that the program director's own self-reflection is an excellent barometer of the existence of burnout. This finding could be useful in encouraging program directors to take time to self-reflect on a regular basis to determine when they are beginning to feel higher levels of burnout. Recognizing the existence of burnout syndrome early can help decrease the emotional effects, such as increased frustration, decreased morale, and depression (Daley, 1979; Freudenberger, 1974), as well as physical symptoms, such as headaches, insomnia,

gastrointestinal upset, decreased immune system function, musculoskeletal disorders and physical exhaustion (Freudenberger, 1974; Maslach, 1982; Pines, Aronson, & Kafry, 1981).

### *Limitations and Recommendations for Future Research*

It should be noted that the results of this study are specific to athletic training education program directors. Therefore, care should be taken in generalizing these results to other athletic trainer populations (i.e., high school, clinical, professional, etc.), athletic training and non-athletic training faculty members, or other allied health professionals.

The first limitation of this study is that generalization to the full population of athletic training education program directors may also be difficult due to the fact that CAATE does not publish demographic data on program directors for comparison and only 31.5% of the full population responded and participated in this study. Sheehan (2001), however, reported a mean survey response rate of 36.8% in a survey of 31 studies utilizing electronic data collection methods. While the response rate for this study was much lower than the 74% response rate for the Walter et al. (2009) study, data collection methods were different as the Walter et al. study utilized a traditional postal mailing data collection method.

This study was also limited by the small amount of relevant related research upon which to build. While there are multiple studies examining athletic trainer burnout (Campbell, Miller, & Robinson, 1985; Capel, 1986, 1990; Hendrix, Acevedo, & Herbert, 2000; Pitney, Ilsley, & Rintala, 2002), there was only one previous study found to focus specifically on athletic training education program director burnout (Walter, Van Lunen, Walker, Ismaeli, & Onate, 2009).

One further limitation of this study is that it was conducted at the end of the traditional academic year of 2008 and data collection carried through the summer of 2008. Collecting burnout data at the end of an academic year could potentially result in higher burnout scores due to timing of data collection.

Future research on the topic of athletic training education program director burnout may benefit from a mixed methods approach, with follow-up interviews and other qualitative methodology used to further refine and develop understanding of the issues which influence and contribute to burnout among those program directors who are currently suffering from burnout. Such qualitative results could then be used for the selection of alternative or the creation of new instruments to quantitatively measure burnout with greater accuracy.

Future research should also include other athletic training education program faculty, as well as other higher education faculty members along with the program director population to allow for comparison of these groups. This type of comparison would be helpful in determining if the level of burnout experienced by athletic training education program directors is comparable to the levels of burnout experienced by others working in higher education. It might also be useful to measure the burnout of other athletic training populations along with athletic training education program director burnout to better understand how program director burnout differs from other areas of practice.

Future researchers may also wish to repeat this study and consider the factors of Carnegie classification of institutions as a contributing factor to athletic training education program director burnout versus the NCAA and NAIA institutional



classifications considered in this study. The rigors associated with faculty service at research intensive institutions may prove influential in burnout levels among athletic training education program directors.

An additional area which future researchers may consider is the relationship between role conflict and the burnout constructs. In the present study a negative statistically significant correlation existed between role conflict and burnout, suggesting higher levels of role conflict associated with lower levels of burnout. Future research may seek to investigate and explain this peculiar relationship in an effort to determine the apparent positive effects of role conflict in mitigating burnout syndrome.

Finally, future research should also consider investigating the other Pearson product-moment correlations which were statistically significant at the  $p < .01$  level as demonstrated in the complete correlation matrix found in Appendix B. These factors, however, were not under consideration as part of this study, as this study sought to determine the Pearson product-moment correlation between multiple independent variables, including program director demographics and institution class, and burnout constructs of exhaustion, disengagement from work and total burnout as measured by the Oldenburg Burnout Inventory.

With the continued development of the athletic training education program director position and the progression of athletic training as an allied health profession, future research in athletic training education should continue to focus on athletic training education program director burnout. As demands increase and the roles of athletic training education program directors continue to change, the risk for development of burnout syndrome remains. With the uncertain nature of burnout syndrome, and given

that there is currently no single instrument used to clinically diagnose burnout, researchers of burnout syndrome still have much to discover (Schaufeli & Enzmann, 1998).

## APPENDIX A



13 May 2008

Mr. Brad Adams

SUBJECT: "Athletic Training Education Program Director  
Burnout: Contributing Factors"

Dear Mr. Adams:

The Institutional Review Board for the Protection of Human Subjects in Research has reviewed the subject proposal. The proposed research protocol is exempt from human subject regulations as described in 45 CFR 46.101(b)(2).

Therefore, you have approval to proceed with the study. The Committee expects that the appropriate subject protection measures will be followed, as outlined in your proposal.

Please inform the Committee of any ethical issues that may arise in your study. Please feel free to contact me should you encounter other issues relevant to the protection of human subjects. Good luck with your research.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jon Nieberding", is located below the "Sincerely," text.

Jon Nieberding  
IRB Chair

INSTITUTIONAL  
REVIEW BOARD FOR  
THE PROTECTION OF  
HUMAN SUBJECTS IN  
RESEARCH

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	Tenure Status	Clin. Coord. Position	Institutional Class	# Students in Program	# ATEP Faculty	% Clinical Duties	% Academic Duties	% Scholarship Duties	% Admin. Duties	% Service Duties	% Other Duties	Previous Prog. Dir. Experience
OLBI	.061	-.010	.014	.181	.146	.048	.011	-.101	.056	-.040	.128	-.089
Total	.533	.915	.886	.061	.132	.619	.909	.297	.564	.678	.187	.362
OLBI	.060	-.009	.043	.179	.109	.026	.012	-.105	.072	-.041	-.096	-.091
Exhaustion	.537	.923	.660	.064	.263	.791	.901	.277	.458	.677	.321	.350
OLBI	.054	.010	.019	.161	.169	.067	.009	.085	.032	-.036	-.146	-.076
Disengagement	.580	.916	.848	.096	.081	.491	.928	.384	.741	.715	.131	.437
Locus of Control	.045	.137	.054	-.190	-.137	-.029	.031	-.103	.096	-.061	-.007	.032
	.645	.157	.578	.049	.157	.764	.751	.291	.322	.528	.943	.745
Role Conflict	.046	-.033	-.070	.103	-.076	-.283	.062	.213	-.021	.079	.014	-.003
	.637	.738	.470	.288	.436	.003	.522	.027	.825	.419	.885	.972
Role Ambiguity	-.124	-.011	.003	.114	.049	-.165	.007	.103	.065	.038	-.125	.030
	.202	.908	.975	.241	.614	.088	.940	.289	.505	.697	.196	.761
Perceived Burnout	.093	.011	.098	.023	.134	.033	.066	-.164	.044	-.068	.039	.068
	.341	.913	.312	.814	.168	.731	.495	.090	.651	.482	.685	.483
Age	-.338	-.012	-.074	.196	.264	.098	-.137	-.079	.187	-.036	-.147	-.232
	.000	.905	.446	.042	.006	.315	.157	.417	.053	.711	.129	.016
Gender	.002	-.136	-.063	-.158	-.144	-.122	.218	-.128	-.122	.014	.111	.142
	.987	.162	.515	.403	.138	.209	.023	.188	.209	.889	.253	.142
Education Level	-.308	-.079	-.278	.150	-.067	-.313	-.035	.219	.091	.082	.205	-.243
	.001	.415	.004	.121	.490	.001	.719	.023	.348	.400	.033	.011
Years Certified	-.348	.038	-.072	.246	.220	-.011	-.062	-.073	.157	-.005	-.129	-.218
	.000	.697	.461	.010	.022	.910	.522	.456	.105	.956	.183	.023
Years as Prog. Dir.	-.295	.112	-.077	.165	.162	.033	-.178	-.107	.210	.083	-.081	-.104
	.002	.250	.430	.089	.094	.732	.065	.270	.029	.393	.405	.284
Total Years as Prog. Dir.	-.255	.066	-.178	.213	.162	-.046	-.128	-.067	.212	.062	.097	-.425
	.008	.495	.065	.027	.093	.635	.185	.488	.028	.523	.317	.000

	OLBI Total	OLBI Exhaustion	OLBI Disengage	Locus of Control	Role Conflict	Role Ambiguity	Perceived Burnout	Age	Gender	Education Level	Years Certified	Years as Prog. Dir.	Total Years as Prog. Dir.
Tenure Status	.061 .533 -.010 .915	.060 .537 -.009 .923	.054 .580 -.010 .916	.045 .645 .137 .157	.046 .637 -.033 .738	-.124 .202 -.011 .908	.093 .341 .011 .913	-.338 -.000 -.012 .905	.002 .987 -.136 .162	-.308 .001 -.079 .415	-.348 .000 .038 .697	-.295 .002 .112 .250	-.255 .008 .066 .495
Clin. Coord. Position	.014 .886	.043 .660	-.019 .848	.054 .578	-.070 .470	.003 .975	.098 .312	-.074 .446	-.063 .515	-.278 .004	-.072 .461	-.077 .430	-.178 .065
Institutional Class	.181 .061	.179 .064	.161 .096	-.190 .049	.103 .288	.114 .241	.023 .814	.196 .042	-.158 .103	.150 .121	.246 .010	.165 .089	.213 .027
# Students in Program	.146 .132	.109 .263	.169 .081	-.137 .157	-.076 .436	.049 .614	.134 .168	.264 .006	-.144 .138	-.067 .490	.220 .022	.162 .094	.162 .093
% ATEP Faculty	.048 .619	.026 .791	.067 .491	-.029 .764	-.283 .003	.165 .088	.033 .731	.098 .315	-.122 .209	.313 .001	-.011 .910	.033 .732	.046 .635
% Clinical Duties	.011 .909	.012 .901	.009 .928	.031 .751	.062 .522	.007 .940	.066 .495	-.137 .157	.218 .023	-.035 .719	-.062 .522	-.178 .065	-.128 .185
% Academic Duties	-.101 .297	-.105 .277	-.085 .384	-.103 .291	.213 .027	.103 .289	-.164 .090	-.079 .417	-.128 .188	.219 .023	-.073 .456	-.107 .270	.067 .488
% Scholarship Duties	.056 .564	.072 .458	.032 .741	.096 .322	-.021 .825	.065 .505	.044 .651	.187 .053	-.122 .209	.091 .348	.157 .105	.210 .029	.212 .028
% Admin. Duties	-.040 .678	-.041 .677	-.036 .715	-.061 .528	.079 .419	.038 .697	-.068 .482	-.036 .711	.014 .889	.082 .400	-.005 .956	.083 .393	.062 .523
% Service Duties	-.128 .187	-.096 .321	-.146 .131	-.007 .943	.014 .885	-.125 .196	-.039 .685	-.147 .129	-.111 .253	.205 .033	-.129 .183	-.081 .405	-.097 .317
% Other Duties	-.089 .362	-.091 .350	-.076 .437	.032 .745	-.003 .972	.030 .761	.068 .483	-.232 .016	.142 .142	-.243 .011	-.218 .023	-.104 .284	-.425 .000

	Tenure Status	Clin. Coord. Position	Institutional Class	# Students in Program	# ATEP Faculty	% Clinical Duties	% Academic Duties	% Scholarship Duties	% Admin. Duties	% Service Duties	% Other Duties	Previous Prog. Dir. Experience
Tenure Status	1.000	-.063 .518	.079 .418	-.094 .334	-.078 .420	.128 .187	.118 .224	-.139 .151	-.130 .180	-.076 .437	.063 .518	.093 .336
Clin. Coord. Position	-.063 .518	1.000	.212 .028	-.226 .018	.007 .946	.269 .005	-.014 .882	-.153 .115	-.108 .268	-.030 .756	.031 .750	.081 .407
Institutional Class	.079 .418	.212 .028	1.000	-.362 .000	-.006 .950	.192 .047	.105 .278	-.383 .000	.091 .349	-.210 .029	-.009 .929	.201 .037
# Students in Program	-.094 .334	-.226 .018	-.362 .000	1.000	.244 .011	.171 .077	-.131 .178	.207 .032	.141 .147	.110 .258	-.207 .032	-.145 .135
# ATEP Faculty	-.078 .420	.007 .946	.006 .950	.244 .011	1.000	.310 .001	.161 .095	-.039 .688	.103 .288	-.171 .076	-.094 .332	.067 .490
% Clinical Duties	.128 .187	.269 .005	.192 .047	.171 .077	.310 .001	1.000	-.396 .000	-.197 .041	-.142 .144	-.129 .182	-.085 .383	.160 .097
% Academic Duties	.118 .224	-.014 .882	.105 .278	.207 .032	.141 .258	.110 .258	-.207 .032	.141 .258	.110 .258	-.207 .032	-.145 .135	.051 .597
% Scholarship Duties	-.139 .151	-.153 .115	-.383 .000	.091 .349	-.210 .029	-.009 .929	.201 .037	-.145 .135	.135 .135	.304 .001	-.023 .812	.225 .019
% Admin. Duties	-.130 .180	-.108 .268	-.091 .349	.141 .258	.110 .258	-.207 .032	.141 .258	.110 .258	-.207 .032	.141 .258	-.042 .063	.087 .519
% Service Duties	-.076 .437	-.030 .756	-.210 .029	-.009 .929	.201 .037	-.145 .135	.304 .001	-.042 .063	.087 .519	-.029 .765	.063 .519	.029 .765
% Other Duties	.063 .518	.031 .750	.750 .029	.000 .000	.000 .000	.000 .000	.000 .000	.000 .000	.000 .000	.000 .000	.000 .000	.000 .000
Previous Prog. Dir. Experience	.093 .336	.081 .407	.407 .037	.037 .135	.135 .490	.097 .097	.597 .597	.019 .019	.519 .519	.765 .765	.369 .369	1.000

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

## APPENDIX C

**Informed Consent**

Dear Fellow Program Director:

My name is Brad Adams and I am the director of the athletic training education program at Urbana University in Urbana, Ohio, and a doctoral candidate at the University of Dayton. I am writing to invite you to participate in a study of professional burnout among entry-level athletic training education program directors. I understand that we, as program directors, receive several survey requests during the course of the academic year, and with the end of the year quickly approaching, I know your time is valuable.

This study seeks to investigate the existence of professional burnout, as well as examine potential contributing factors of professional burnout among program directors. Research has linked professional burnout to "helping professions," and understanding the factors which contribute to professional burnout among the directors of entry-level athletic training education programs may result in proactive approaches aimed at decreasing the incidence of professional burnout. Due to the small population of program directors at CAATE accredited institutions, your participation in this research is vital.

Data for this study will be collected electronically. All responses submitted will be coded and kept strictly confidential. All data will be aggregated, and no personally identifiable information will be communicated or published. There are no anticipated risks or discomforts associated with this study. This survey should take *approximately 20 minutes* to complete. This study has been reviewed by the Institutional Review Board for the Protection of Human Subjects in Research at both the University of Dayton and Urbana University. This email serves as your informed consent to participate in this study, and by clicking on the following link you are giving your informed consent to continue with the electronic survey.

<LINK HERE>

I appreciate your time and consideration of my request for your participation. If you have any questions regarding this study or the request to participate, please contact me.

Sincerely,

Brad K. Adams, MEd, ATC  
Doctoral Candidate – University of Dayton



## Appendix D

## Oldenburg Burnout Inventory

*Instructions: Below are statements with which you may agree or disagree. Using the scale, please indicate the degree of your agreement by selecting the number that corresponds with the statement.*

	Strongly Disagree	Disagree	Agree	Strongly Agree
I always find new and interesting aspects in my work	1	2	3	4
There are days when I feel tired before I arrive at work	1	2	3	4
It happens more and more often that I talk about my work in a negative way	1	2	3	4
After work, I tend to need more time than in the past in order to relax and feel better	1	2	3	4
I can tolerate the pressure of my work very well	1	2	3	4
Lately, I tend to think less at work and do my job almost mechanically	1	2	3	4
I find my work to be a positive challenge	1	2	3	4
During my work, I often feel emotionally drained	1	2	3	4
Over time, one can become disconnected from this type of work	1	2	3	4
After working, I have enough energy for my leisure activities	1	2	3	4
Sometimes I feel sickened by my work tasks	1	2	3	4
After my work, I usually feel worn out and weary	1	2	3	4
This is the only type of work that I can imagine myself doing.	1	2	3	4
Usually, I can manage the amount of my work well	1	2	3	4
I feel more and more engaged in my work	1	2	3	4
When I work, I usually feel energized	1	2	3	4

## Appendix E

## Role Questionnaire

*Please consider the following items. Using the 7-point scale, please rate how each item applies or exists for you personally.*

	Very False	Some- what False	False	Neutral	True	Some- what True	Very True
1. I have enough time to complete my work.	1	2	3	4	5	6	7
2. I feel certain about how much authority I have.	1	2	3	4	5	6	7
3. I perform tasks that are too easy or boring.	1	2	3	4	5	6	7
4. I have clear, planned goals and objectives for my job.	1	2	3	4	5	6	7
5. I have to do things that should be done differently.	1	2	3	4	5	6	7
6. Lack of policies and guidelines serves to help me.	1	2	3	4	5	6	7
7. I am able to act the same regardless of the group I am with.	1	2	3	4	5	6	7
8. I am corrected or rewarded when I really don't expect it	1	2	3	4	5	6	7
9. I work under incompatible policies and guidelines.	1	2	3	4	5	6	7
10. I know that I have divided my time properly.	1	2	3	4	5	6	7
11. I receive an assignment without the manpower to complete it.	1	2	3	4	5	6	7
12. I know what my responsibilities are.	1	2	3	4	5	6	7
13. I have to buck a rule or policy in order to carry out an assignment.	1	2	3	4	5	6	7
14. I have to "feel my way" in performing my duties.	1	2	3	4	5	6	7
15. I receive assignments that are within my training and capability.	1	2	3	4	5	6	7
16. I feel certain how I will be evaluated for a raise or promotion.	1	2	3	4	5	6	7
17. I have just the right amount of work to do.	1	2	3	4	5	6	7
18. I know that I have divided my time properly	1	2	3	4	5	6	7
19. I work with two or more groups who operate quite differently.	1	2	3	4	5	6	7

	Very False	Some- what False	False	Neutral	True	Some- what True	Very True
20. I know exactly what is expected of me.	1	2	3	4	5	6	7
21. I receive incompatible requests from two or more people.	1	2	3	4	5	6	7
22. I am uncertain as to how my job is linked.	1	2	3	4	5	6	7
23. I do things that are apt to be accepted by one person and not accepted by others.	1	2	3	4	5	6	7
24. I am told how well I am doing my job.	1	2	3	4	5	6	7
25. I receive an assignment without adequate resources and materials to complete it.	1	2	3	4	5	6	7
26. Explanation is clear of what has to be done.	1	2	3	4	5	6	7
27. I work on unnecessary things.	1	2	3	4	5	6	7
28. I have to work under vague directives or orders.	1	2	3	4	5	6	7
29. I perform work that suits my values.	1	2	3	4	5	6	7
30. I do not know if my work will be acceptable to my boss.	1	2	3	4	5	6	7

## Appendix F

**Rotter's Internal-External Locus of Control Survey**

*This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of choices lettered either a or b. Please select the one statement from each pair which you more strongly believe to be the case as far as you are concerned. Be sure to select the one you actually believe to be truer rather than the one you think you should choose or the one you would like to be true. In some instances you may discover that you believe either both or neither statements. In this instance, select the one you more strongly believe to be true. Also, please respond to each item independently and do not allow previous choices to influence your selection. This is a measure of personal belief and, therefore, there are no right or wrong answers.*

1.     a. Children get into trouble because their parents punish them too much.  
       b. The trouble with most children nowadays is that their parents are too easy with them.
2.     a. Many of the unhappy things in people's lives are partly due to bad luck.  
       b. People's misfortunes result from the mistakes they make.
3.     a. One of the major reasons why we have wars is because people don't take enough interest in politics.  
       b. There will always be wars, no matter how hard people try to prevent them.
4.     a. In the long run people get the respect they deserve in this world.  
       b. Unfortunately, an individual's worth often passes unrecognized no matter how hard they try.
5.     a. The idea that teachers are unfair to students is nonsense.  
       b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6.     a. Without the right breaks one cannot be an effective leader.  
       b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7.
  - a. No matter how hard you try some people just don't like you.
  - b. People who can't get others to like them don't understand how to get along with others.
8.
  - a. Heredity plays the major role in determining one's personality.
  - b. It is one's experiences in life which determine what they're like
9.
  - a. I have often found that what is going to happen will happen.
  - b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10.
  - a. In the case of the well-prepared student there is rarely, if ever, such a thing as an unfair test.
  - b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11.
  - a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
  - b. Getting a good job depends mainly on being in the right place at the right time.
12.
  - a. The average citizen can have an influence in government decisions.
  - b. This world is run by the few people in power, and there is not much the little guy can do about it.
13.
  - a. When I make plans, I am almost certain that I can make them work.
  - b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14.
  - a. There are certain people who are just no good.
  - b. There is some good in everybody.
15.
  - a. In my case getting what I want has little or nothing to do with luck.
  - b. Many times we might just as well decide what to do by flipping a coin.

16.
  - a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
  - b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
17.
  - a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
  - b. By taking an active part in political and social affairs the people can control world events.
18.
  - a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
  - b. There really is no such thing as "luck."
19.
  - a. One should always be willing to admit mistakes.
  - b. It is usually best to cover up one's mistakes.
20.
  - a. It is hard to know whether or not a person really likes you.
  - b. How many friends you have depends upon how nice a person you are.
21.
  - a. In the long run the bad things that happen to us are balanced by the good ones.
  - b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
22.
  - a. With enough effort we can wipe out political corruption.
  - b. It is difficult for people to have much control over the things politicians do in office.
23.
  - a. Sometimes I can't understand how teachers arrive at the grades they give.
  - b. There is a direct connection between how hard I study and the grades I get.
24.
  - a. A good leader expects people to decide for themselves what they should do.
  - b. A good leader makes it clear to everybody what their jobs are.

- 25.   a. Many times I feel that I have little influence over the things that happen to me.  
      b. It is impossible for me to believe that chance or luck plays an important role in my life.
- 26.   a. People are lonely because they don't try to be friendly.  
      b. There's not much use in trying too hard to please people, if they like you, they like you.
- 27.   a. There is too much emphasis on athletics in high school.  
      b. Team sports are an excellent way to build character.
- 28.   a. What happens to me is my own doing.  
      b. Sometimes I feel that I don't have enough control over the direction my life is taking.
- 29.   a. Most of the time I can't understand why politicians behave the way they do.  
      b. In the long run the people are responsible for bad government on a national as well as on a local level.

## Appendix G

**Demographic Questionnaire**

Age

Gender

Highest Level of Education

Years certified as ATC

How long in current position?

Previous experience as Program Director? If so, how long?

Total amount of time as Program Director?

Tenured?

Tenure track?

Institutional Classification (NCAA DI, NCAA DII, NCAA DIII, NAIA)

College/Department housing ATEP

Number of students in ATEP

Number of ATEP faculty

Clinical Coordinator?

Load Breakdown (percentages)

Administration

Academic

Clinical

Scholarship

Service

Other (please specify)



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