EXAMINATION OF BURNOUT IN NCAA ATHLETIC TRAINING USING THE ATHLETIC TRAINING BURNOUT INVENTORY

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ABSTRACT

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Maslach & Jackson (1981) created the Maslach Burnout Inventory that was designed to assess burnout in a wide range of human service workers. In 2008, Clapper & Harris designed an instrument known as the Athletic Training Burnout Inventory. The ATBI revised the MBI to make the scale and items assessing burnout more specific to athletic trainers in the collegiate setting. The purpose of this study is to assess the level of burnout in athletic trainers from division I, II and III using the Athletic Training Burnout Inventory. Participants will be licensed and/or certified athletic trainers who are employed in a NCAA division I, II or III universities or colleges in the United States. An ATBI, descriptive statistics survey and instructions were e-mailed to a stratified random sample of 4,518 athletic trainers. Of those invitations sent, 298 athletic trainers completed the electronic survey. This resulted in a 6.5 % response rate. Statistical data analyses that were used included descriptive statistics, one way MANOVA and independent factorial MANAOVA. All data analyses were conducted using the SPSS version 20.0. A significance level of $p < .05$ was used for all analyses. Results of this study indicate that the prevalence of burnout in the athletic training profession is low. However, cut off scores should be developed before a true assessment of burnout can be made. Furthermore, the results of this study indicate no significant relationship of

National Collegiate Athletic Association division level (division I, division II and division III) on the constructs of burnout (emotional exhaustion/ depersonalization, administrative responsibility, time commitment and organizational support). Additionally, this study shows that athletic trainers have a significantly higher feeling of administrative responsibility when they have no support staff as compared to having ten or more support staff. It was also found that those athletic trainers who teach 29 or fewer hours per week felt a significantly higher level of administrative responsibility than those that teach no hours per week. Lastly, athletic trainers who make $20,001-$60,000 per year felt a significantly higher level of time commitment that those athletic trainers who make $20,000 or less per year.

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CHAPTER I

INTRODUCTION

Burnout was first introduced as a phenomenon that occurred in individuals who were dedicated and committed to human service positions. These positions often employed talented people for long hours in stressful environments and paid very little compensation (Freudenberger, 1974). In 1974, Freudenberger (1974) found that certain job related, stressful situations produced symptoms such as exhaustion, fatigue, being unable to shake a lingering cold, suffering from frequent headaches and gastrointestinal disturbances, sleeplessness and shortness of breath. The reason for the job related symptoms were coined by Freudenberger (1974) as "burnout". Although significant research was not completed at this time, the introduction set a framework to begin research in this area.

Concurrently, Maslach (1976) studied emotional coping of human service workers and found that the emotional exhaustion the practitioners experienced often caused negative feeling towards the patients they were servicing. Maslach and Jackson (1981) described this as burnout. This is a three dimensional syndrome characterized by emotional exhaustion, depersonalization and reduced personal accomplishment. Maslach's (1976) research became the foremost and most admired theoretical work in regards to burnout syndrome. The Maslach Burnout Inventory was constructed to measure hypothesized aspects of the burnout syndrome, designed to assess burnout in a

wide range of human service workers and is regarded as the gold standard used to assess the burnout (Capel, 1990; Hendrix, Acevedo & Hebert, 2000). Burnout has been evaluated in many professions, but the most common are those who work in a people oriented field, human services, education and healthcare (Maslach & Goldberg, 1998). Although burnout can occur to anyone working in any field, people oriented workers have been shown to be the most vulnerable to this issue (Maslach, 1993).

The Strategic Implementation team of National Athletic Trainers Association. (2007) states athletic training is practiced by athletic trainers who collaborate with physicians to optimize activity and participation of patients and clients. Athletic training encompasses the prevention, diagnosis and intervention of emergency, acute and chronic medical conditions involving impairment, functional limitations and disabilities. The American Medical Association recognizes athletic trainers as allied health care professionals that are licensed by their state health board or certified by the National Athletic Trainers Association. The American Medical Association recommends that an athletic trainer should be present in every high school to ensure that the athletes participating in sports stay safe and healthy (NATA, 2003).

The athletic training profession is demanding in many ways. Often athletic trainers work long hours, in inclement weather conditions with low salaries. Additionally, the athletic trainer to athlete ratio is high, there is a lack of appropriate resources and many hours are spent on the road traveling with the sport teams (Malasarn, Bloom & Crumpton, 20002; Mazerolle et al., 2008). Often, there are multiple obligations and

potential for "divided loyalties" of the athletic trainer to parents, coaches, physicians, and organizations (Swisher, Nyland, Klossner & Beckstead, 2009). Many of the stressors that athletic trainers experience are due to the demands of athletic schedules, unrealistic expectations of coaches, parents and athletes, and the inherent competitiveness of athletics (Wilson, 2001; Pitney, 2006).

Collegiate athletic trainers find their jobs to be demanding, have obligations to multiple teams, individual participants, teaching, clinical care and the administrative tasks involved in providing appropriate medical coverage (Brumels & Beach, 2008). The most common theme among athletic trainers is that most do not make a salary comparable to the amount of work that is completed. In addition, the lack of control of work schedules, inflexible work schedules, locus of control and long work hours were primary reasons for athletic trainers to leave the profession entirely (Staurowsky et al., 1998).

Just like many health professionals, athletic trainers are known to work long hours in high stress situations. The time that athletic trainers spend at work can diminish their ability to complete personal and family needs outside of the work environment. Researchers have found that many athletic trainers feel that the time commitment for this profession creates a work family conflict (Pitney, 2006; Scriber et al., 2005). Capel (1990) first looked at the lack of personal time as a reason an athletic trainer left the profession to pursue other employment. Women's role in athletic training as well as their family life has been a source of research for the last several years (Henning & Weidner,

2006). Traditionally, women have been responsible for the majority of the family related responsibilities. With the athletic training profession consuming more time than traditional employment, these responsibilities become hard to complete. Essentially, if an athletic trainer experiences more work / family conflict, then their job satisfaction will decrease while their job burnout and intention to leave the organization will increase (Mazerolle et al., 2008). Barret et al. (2002) states that "the profession of athletic training has the responsibility of identifying new ways to advance in the area of human resources and job satisfaction, thus propagating a satisfied, well adjusted, balanced and dedicated professional which can successfully progress into the 21st century" (p.11).

The Maslach Burnout Inventory (MBI) has been used to predict burnout in the collegiate athletic training profession (Campbell, Miller & Robinson, 1985; Capel, 1986; Giacobbi, 2009; Kania et al., 2009). However, researchers have found that not all assessment criteria correspond to every employment situation. Clapper and Harris (2008) designed an instrument known as the Athletic Training Burnout Inventory (ATBI). "The ATBI revised the MBI to make the scale and items assessing burnout more specific to athletic trainers in the collegiate setting, and added new constructs to reflect observations of the past authors" (p.64). Clapper et al. (2008) found that the ATBI had acceptable reliability to describe factors that contribute to burnout for athletic trainers in division I-A athletics. However, the authors stated that the findings in division I should be compared with division II and division III to determine if differences exist in the factors that contribute to burnout and the level of burnout across various NCAA levels. The

constructs of burnout within the Athletic Training Burnout Inventory are emotional exhaustion/ depersonalization, time commitment, administrative responsibility and organizational support. Emotional exhaustion describes a chronic state of physical and emotional depletion that results from excessive job demands and continuous stress (Maslach et al., 2008). Time commitment refers to a split of the orginal burnout construct; level of stress. Time commitment is the commitment of time that and employer expects you to contribute, such as week-end hours, time away from family and regular working hours (Clapper et al., 2008). Adminstrative responsibility is an additional construct of burnout that was split from the orginal level of stress. Administrative resposibility refers to responsibilities such as paper work and meetings that is required of your employment (Clapper et a., 2008). Lastly, organizational support refers to the generalized beliefs that employees adopt concerning the extent to which the organization values their contribution and cares about their well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986).

Purpose

The purpose of this study was to examine the level of reported burnout scores between licensed and/or certified athletic trainers in division I, division II and division III National Collegiate Athletic Association universities in the United States using the Athletic Training Burnout Inventory. Specifically, this study examined the effect of collegiate division level, salary, number of athletes under direct care, number of teams under direct care, number of hours worked per week, number of hours teaching per week on burnout scores.

Research Questions

1. What is the prevalence of reported burnout among athletic trainers in the NCAA?
2. What construct of burnout is found to be the most common among collegiate athletic trainers in division I, division II and division III?
3. What factors are significant contributors to burnout among athletic trainers in the NCAA?
    a. Which factors are found to be significant among division I, division II and division III?

Significance

Research regarding burnout in the athletic training profession is limited. Furthermore literature involving burnout among collegiate athletic trainers is limited and grouped among distinct sections of the United States or NCAA divisions only. In order to generalize findings to most athletic trainers within the United States it was important to include all NCAA divisions as well as each state within the United States.

Due to the overall deficiency of research in this field the current research had a multifaceted significance. First it's important to identify the variables that lead to increased burnout within the collegiate athletic training profession (Kania et al., 2009; Clapper et al., 2008; Hendrix, Acevedo & Hebert, 2000; Walter, Van Lunen, Walker, Ismaeli & Onate, 2009). Previous studies have included demographic and environmental surveys that included variables such as : age, gender, NATA district, race, relationship

status, number of children, highest degree attained, years certified, years at current position, number of athletes responsible and hours worked per week.

Athletic trainers provide the daily prevention, treatment and rehabilitation of athletic injuries to atheltes. Often collegiate athletic trainers have the added pressures dealing with undersized staff, lack of resources and increased chances of litigation (Belle, 2001; Pitney, 2006). When athletic trainers experience increased burnout, the quality of care they provide to the athletes will likely suffer, they will lose motivation as well as commitment to the job (Fruedenberger, 1974; Giacobbi, 2009). Exposing the variables that lead to burnout will help athletic trainers understand the phenomenon better and possibly begin to implement preventional strategies against burnout. Furthermore, preventional strategies can help decrease stress which leads to less stress related illnesses, decrease abstineeism and decreased attrition. This could lead to increased productivity of the atheltic trainer and possible increased success of the sport team.

The primary, valid and reliable instrument used to measure burnout among professionals in the health care field is the MBI-HSS (Kania et al., 2009). However, several researchers have indicated that the MBI- HSS may not provide insight to the burnout of atheltic trainers due to their unqiue working environments and workplace stressors (Kania et al., 2009; Clapper et al., 2008). Due to these concerns researchers developed a valid and reliable instrument specific to the athletic training profession. The Athletic Training Burnout Inventory was developed in 2008 to address this unique profession and included constructs such as emotional exhaustion, depersonlization,

adminstrative responsibility, time commitment and organizational support. Additionally, the ATBI includes a section of questions specifically for athletic trainers working in a unique position of education program director (Clapper et al., 2008). This instrument has only been used as a pilot test with Division I athletic trainers. The authors of this study suggest that further research include amendments to the descriptive statistics survey, administration to athletic trainers working in other settings, creating cut scores to assess for burnout and determine factors that contribute to burnout (Clapper et al., 2008). Furthermore, it is important that this instrument be used to examine burnout within the other NCAA divisions. The ability to compare results among NCAA divisions will not only add to the limited research in this area, but will also help provide pertinent information regarding the possible burnout, decreased level of care and subsequent attrition of these professionals.

Limitations

The study was limited to the bias an athletic trainer has toward the concept of burnout. This bias might include previous experiences of the athletic trainer and / or negative connotation of the term burnout. Maslach and Jackson (1996) suggest that the instrument used to measure burnout be titled "Human Service Survey" instead of a title relating to burnout itself. It was assumed that participants who are employed within a university setting would have access to the internet as well as an e-mail address provided by the university.

Delimitations

This study was delimitated to licensed and/ or certified athletic trainers who are employed at a Division I, II or III university in the United States. Each university must also sponsor a football team that is an active member of the NCAA in their respective division. Subjects should be 18 years of age or older and active members of the profession. As active members of the profession, the athletic trainer would be in current membership of the National Athletic Trainers Association and not be retired from the profession. Participants should not be students that are not licensed or certified. The participants responding to the survey must be able to comprehend the questions of the study as well as answer the questions honestly.

Definitions of Terms

These terms were used during the study:

Allied Health Profession- a group of medically prescribed health-care services, such as occupational therapy and athletic training that are provided by licensed professionals (Allied Health Professional, 2011).

Athletic trainer- is a certified, health care professional who practices in the field of medical athletic training. Athletic training has been recognized by the American Medical Association (AMA) as an allied health care profession since 1990 (Terminology, n.d.).

Burnout- exhaustion of physical or emotional strength or motivation usually as a result of organizational demands outweighing organizational support (Chernis, 1980; Maslach & Leiter, 2008).

Cut Scores- is the score that separates test takers into various categories (Maslach, Schaufeli and Leiter, 2001).

Depersonalization- refers to a negative, callous or excessively detached response to various aspects of the job (Maslach & Leiter, 2008).

Emotional Exhaustion- is a chronic state of physical and emotional depletion that results from excessive job demands and continuous stress (Maslach et al., 2008).

Hardiness- a personality construct consisting of 3 main constructs: Control, commitment and challenge that help a person endure stressors without ill effects (Kania, Meyer & Ebersole, 2009; Maddi, 1999).

Human Service- uniquely approaching the objective of meeting human needs through an interdisciplinary knowledge base, focusing on prevention as well as remediation of problems, and maintaining a commitment to improving the overall quality of life of service populations (Maslach, Schaufeli & Leiter, 2001).

Perceived Organizational Support- refers to the generalized beliefs that employees adopt concerning the extent to which the organization values their contribution and cares about their well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986).

Stress- pressure stemming from an individual's environment or a form of strain within a person (Michie, 2002).

The National Collegiate Athletic Association (NCAA) - a semi- voluntary association of 1,281 institutions, conferences, organizations and individuals that organizes the athletic programs of many colleges and universities in the United States and Canada (Who we are, 2011).

Work/ Family Conflict- is a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect (Netemeyer, Mc Murrian & Boles, 1996).

CHAPTER II

REVIEW OF LITERATURE

Introduction

The literature review examines several areas as they are related to the concept of burnout. Burnout is first introduced in a historical perspective by describing the processes of early research. Additionally, the current and previous symptoms found to be related to burnout are described in detail. The literature review continues by examining the factors related to burnout in regards to psychological, personal and workplace aspects. Furthermore, the most common instruments used to measure burnout are discussed as well as the most common, the Maslach Burnout Inventory (MBI). Additionally, the Athletic Training Burnout Inventory is described as the instrument used to measure burnout in collegiate athletic training setting as well as the instrument used in this research. Lastly, the sport management and athletic training profession are described, paying close attention to factors that may attribute to burnout in these professions.

Burnout

Burnout was first studied as a psychological syndrome that affects human service workers who suffer from chronic interpersonal stressors on the job (Maslach et al., 1981; Fruedenberger, 1974). The goal of Frudenberger (1974) and Maslach et al. (1981) was initial exploratory research in order to understand the aspects of burnout before assessing the causes and possible prevention techniques. The researchers found common themes

among their investigations. Emotional exhaustion was found as a common component of burnout among human services workers as they attempted to cope with the stresses of "Emotional exhaustion refers to the feeling of being overextended and depleted of one's emotional and physical resources" (Maslach et al., 2008, p. 498). Maslach et al. (1981) describe emotional exhaustion as workers who are no longer being able to give of themselves psychologically. Maslach and Goldberg (1998) describe emotional exhaustion as lacking enough energy to face another day, feeling used up without a way to reenergize. Regardless of the description of the term, emotional exhaustion has been found to be the primary stress dimension of burnout (Maslach et al., 2008; Maslach et al., 1998).

Maslach (1993) describes the three original burnout dimensions as emotional exhaustion, depersonalization and reduced accomplishment. Emotional exhaustion refers to the feeling of being over extended passed the point of using one's resources (Maslach, 1993). Depersonalization occurs when there is an increase in one's emotional exhaustion and in turn a person may feel a negative attitude toward co-workers and/ or other people (Maslcah, 1993). Lastly, reduced personal accomplishment occurs when an individual is no longer able to cope with the demands of the job (Maslach, 1993). The individual then feels less competent at work and may also be less productive (Maslach, 1993). Although many researchers have viewed burnout as a multi dimensional phenomenon, some argue the dimension of emotional exhaustion has a strong identification with burnout and the other dimensions are less important (Shirom, 1989). Other researchers believe that without the additional burnout dimensions it would be impossible to describe burnout as a dynamic process (Cherniss, 1980; Hallston, 1993; Edelwich & Brodsky, 1980). Cherniss (1980) described the burnout process in three stages:

> The first stage involves an imbalance between resources and demands (stress). The second stage is the immediate, short term emotional tension, fatigue and exhaustion (strain). The third stage consists of a number of changes in attitude and behavior, such as tendency to treat clients in a detached and mechanical fashion or a cynical preoccupation with gratification of one's own needs (defensive coping).(p 17).

In the late 1980s to early 1990s researchers began to broaden their view on the concept of burnout. Research became more refined, longitudinal and included occupations outside the human service field (Maslach et al., 2001). In 1996, Maslach broadened the view of burnout, from a result of people's relationship with people at work to a relationship with work in general (Maslach et al., 1996; Schaufeli & Buunk, 2003). This view caused researchers to generalize the original dimensions of emotional exhaustion, depersonalization and reduced accomplishment to exhaustion, cynicism and professional efficacy. Additionally, this view has helped broaden research to in other professions aside from human service workers.

Symptoms and Effects

Freudenberger (1974) states that burn-out often manifest itself in different symptomatic ways from person to person, ranging from physical symptoms such as headaches and exhaustion to fatigue and gastrointestinal problems. Due to this unclear and general description, the literature names up to 100 symptoms that are attributed to burnout (Kania et al., 2009; Schaufeli et al., 2003).This is common with most psychological distress conditions and might indicate the lack of clear organization and cross sectional studies within the burnout literature.

Kania et al., (2009) state symptoms of burnout can occur at the psychological, physiological and behavioral levels. Other researchers dispute the difference between actual symptoms and consequences of burnout, stating that the term manifestations better describes these terms (Schaufeli et al., 2003). These manifestations are categorized into physical, behavioral, affective and motivational (Schaufeli et al., 2003).

Psychological symptoms and manifestations include increased negative self-talk, depression and difficulty in interpersonal relationships (Kania et al., 2009).
The manifestation of these symptoms occurs when the person's emotional resources are exhausted because too much energy has been used for too long a time due to insufficient personnel, equipment, supplies, or space to meet the demand (Aiken, Clarke, Sloane, Sochalski, Busse, Clarke, Giovannetti, Hunt, Rafferty & Shamian, 2001; Schaufeli et al., 2003).

Burnout and depression are often related, especially when it comes to the emotional exhaustion component. Furthermore, burnout has been found to result in depression when accompanied by the feelings of inferiority (Schaufeli et al., 2003; Brenninkmeijer, Van Yperen & Buunk, 2001). Cynicism or depersonalization is a psychological symptom that occurs from attempting to put distance between oneself and various aspects of the job (Maslach & Leiter, 2005). In response, the person experiencing burnout will perceive the recipient in a more negative, pessimistic, less empathetic and more stereotypical way (Schaufeli et al., 2003.)

Although the majority of burnout symptoms are psychological, physiological symptoms may be present as well. Quantitative research has shown a significant relationship between burnout and many physical symptoms (Kahlil, 1988). Physiological symptoms and manifestations have been described as headaches, gastrointestinal disorders, backaches, hyperventilation, missed or irregular menstrual cycles, depersonalization, emotional exhaustion muscle tension, hypertension, poor appetite, cold, flu and sleep disturbances (Leiter & Maslach, 2000a; Kania et al., 2009; Maslach et al., 1981; Kahill, 1988;). These physical symptoms can lead to a picture of overall bad health. Few longitudinal studies on physical manifestations have been completed. However, significant relationships have been found between emotional exhaustion and self reported cold, flu and serious illness (Steel, Leap and Summers, 1991; Bhagat, Allie & Ford, 1995). Furthermore, Landsbergis (1988) found a significant positive relationship between self reported symptoms of coronary heart disease and emotional exhaustion and depersonalization. Due to the clear significant relationship of the burnout constructs (emotional exhaustion and depersonalization) with physical symptoms, it is important to determine if diagnostic criteria would be beneficial in the prevention and/ or treatment of burnout. Some European countries have developed a diagnosis for burnout symptoms that meet a specific set of diagnostic criteria (Schaufeli, Leiter & Maslach, 2009). The United States has yet to make burnout an official medical diagnosis.

Risk Factors

Although a person's work environment has an effect on an employee's burnout level, each employee also brings a set of unique characteristics to the table. These characteristics in conjunction with an employee's work experience can determine the level of burnout that occurs. However, it has been shown that situational variables (conflict with co-workers, low pay, long hours) are more strongly predictive of burnout that personal ones (Maslach & Goldberg, 1998.)

Demographic characteristics are often referred as, but not limited to, age, gender, marital status, education level and work experience. Age is a demographic characteristic that has been studied frequently in relation to burnout. Maslach et al. (1996) describes the most common finding in burnout research is related to employees under 30 years of age, who have little work experience. This finding should be taken with caution as researchers find that selective dropout and the "healthy worker effect" skew the findings to the younger ages (Karasek & Theorell, 1990; Schaufeli & Buunk, 2003). Maslach et al., (2001) have coined this effect as a survival bias, meaning burnout leaves behind the survivors or those who do not experience burnout.

Research on burnout has not systematically studied differences between men and women (Rossi, 2006). However, a growing body of research suggests that family-to-work conflict is related to burnout (Halbesleben & Zellars, 2006). Family to work conflict is described as discord that arises when the time devoted to or time spent fulfilling professional responsibilities interferes or limits the amount of time available to

perform family-related responsibilities (Netemeyer, McMurriam & Boles, 1996). This means that people, who have increasing responsibilities at home and at work, might experience burnout syndrome.

Traditionally, women have assumed the responsibilities for many things at home and may feel that they come home to a "second job". Due to this, women may experience burnout at a stage in their life where responsibilities at home are great (Dilworth, 2004). In contrast, some studies have shown home stressors do cause work stressors for men (Barnett & Marshall, 1992; Forthofer, Markman, Cox, Stanley, & Kessler, 1996).

Psychological Characteristics and Personality

Early research on the effect of personality on burnout included variable such as hardiness, locus of control, Type-A behavior, self esteem and achievement motivation. Early research was not concise enough to consider the individual variation of each employee (Hogan, 1990). This has led to literature that is unable to clearly define the relationship between burnout and personality. Research has been able to indicate that individual factors beyond one work environment and demographics effect the development of burnout (Maslach et al., 2001). External locus of control, a five factor "personality trait" model, positive and negative affectivity, optimism, proactive personality, hardiness and Type A personality are among the most frequently researched personality traits in the field of burnout (Judge, Erez, Bono & Thoresen, 2003; Costa & McCrae, 1992; Watson, Clark & Tellegen, 1988; Scheier & Carver, 1985; Bateman &

Crant, 1993; Kobasa, 1979; Friedman & Roseman, 1974). The five factor model organizes personality traits into the following five categories: emotional stability, extraversion, conscientiousness, agreeableness and openness.

Hardiness is described as a personality construct that reflects the extent to which a person is able to endure stressors without experiencing ill effects, such as psychological or physical strains (Kobasa, 1979). Although early research on personality variables was minimal, a few researchers completed a series of studies that explored the concept of personality hardiness (Kobasa, 1979; Kobasa, 1982a; Kobasa, Maddi & Puccetti, 1982). Kobasa et al. (1982) stated that it takes three factors to measure hardiness: commitment, control and challenge. Chan (2003) assessed hardiness and burnout among teachers and found that hardiness has significant impact on emotional exhaustion and personal accomplishment. Maslach et al. (2001) found that people who have hardy personalities have lower burnout score. More specifically, someone with a hardy personality is less likely to have high emotional exhaustion levels. However, the research does not clearly show that hardiness reduces burnout within all professions. However, Toscano and Ponterdolph (1998) found no direct correlation between personality hardiness and burnout in the allied health professions.

Maslach et al. (2001) describe a Type A personality as one who is competitive, time pressured, hostile and has an excessive need for control. Sturman (1999) describes Type A behavior as extrinsically motivated behavior, ultimately guided by the purpose of obtaining approval from others. Type A individuals are likely to perceive their work

environment as negative, see small issues as major insults, bring out negative responses from co-workers and may select jobs that are inherently stressful (Kirmeyer, 1988; Spector & O'Connell, 1994; Burke & Deszca, 1982). This personality type has been linked to burnout in research literature (Jamal & Vishwanath, 2001; Maslach, 1985; Nowack, 1987). Further research in this area could increase awareness among these individuals who could then implement burnout prevention strategies.

Workplace Demographics

Leiter and Maslach (1999) describe six areas of work life that affect the burnout of employees: Workload, control, reward, community, fairness and values (Leiter et al., 1999). It is believed that burnout is directly related to the overload placed on the employee by their workplace (Cordes & Dougherty, 1993; Maslach et al., 1996; Maslach et al., 2001; Leiter et al., 1999). This theory may vary depending on the type of work an employee is performing and the personal characteristics of the employee. An increasing workload or job overload is consistent with the emotional exhaustion construct of burnout (Leiter & Maslach, 1999; Maslach, Schaufeli & Leiter, 2001). Furthermore, work schedules that are inflexible schedules and increased work hours can produce conflict between work and family and eventually lead to stress and burnout (Presser, 2003; Valcour & Batt, 2003).Workplace control refers to the ability for the employee to effieicently in a structured workplace (Leiter et al., 1999). Role conflict and role ambiguity have been highly correlated with burnout (Schaufeli & Buunk, 2003). Role conflict is described as employment that has conflicting goals, tasks and demands

(Maslach, Schaufeli and Leiter, 2001). Role ambiguity occurs when there is not enough information about the job in order to feel that one is completing tasks sucessfully (Maslach, Schaufeli and Leiter, 2001). Work reward may be financial, social or institutional in nature (Leiter et al., 1999). Any insufficiencies, real or percieved, increase's an employees susceptibility to burnout (Leiter et al., 1999). The social support of supervisors, co-workers and family members can help employees cope with job demands and decrease the chance of burnout (Leiter, 1991; Leiter et al, 1999; Maslach et al., 1996). Fairness of an employee's supervisor effects the work environment of the employee (Leiter et al., 1999). Fairness has rarely been studied in the contest of burnout, but is often seen as a way to help staff member accept organizational change. If a staff member believes that a supervisor is consistantly fair, then change will not significantly increase the change of bunrout (Leiter & Harvie, 1998). Lastly, personal values and employee work values (expectations) have been examined in relation to a mismatch of each (Leiter et al., 1999). Leiter et al. (1999) and Leiter and Harvie (1998) have suggested that when an employees work is not personally important , meaningless and indirectly related to bunrout through the constrtuct of cynacism.

Measuring Burnout

Maslach and Jackson (1981) constructed what is known as the Maslach Burnout Inventory or MBI. The MBI is currently used to measure hypothesized aspects of the burnout syndrome and was designed to assess burnout in a wide range of people. The MBI is regarded as the gold standard used to assess the burnout among people of many

professions (Capel, 1990; Hendrix et al., 2000). The questions within the inventory were designed as statements about personal feelings and attitudes (Maslach & Jackson, 1981). Maslach and Jackson (1981) designed the MBI to follow the Hassels Scale (Lazarus & Cohen, 1977) which rated each question on frequency and intensity. Some researchers believe the emotional exhaustion component is the core symptom of burnout and therefore is the most robust scale of the MBI (Schaufeli & Buunk, 2003). However, the MBI was not applicable to professions outside those helping with people. Other researchers began to develop bunrout instruments that were modified versions of the MBI and were made applicable to specific professsions. Civil servants, computer programmers, military, and managers were among the professions involved in the development of specific surveys (Golembiewski & Munzenrider, 1988; Lee & Ashforth, 1993; Leiter, Clark & Durup, 1994). Results of these studies showed that the factor structure for the MBI was not maintained across other occupational groups (Leiter & Schaufeli, 1996). Furthermore, researchers have noted limitations of the MBI. Some researchers criticize the MBI for poor wording within the survey and not including both positively and negatively worded questions (Demerouti & Nachreiner, 1996; Lee & Ashforth, 1990). Furthermore, additional researchers criticize the "invariance" of the MBI items across cultural groups (Richardson & Martinussen, 2004; Schutte, Toppinen, Kalimo & Schaufeli, 2000). Lastly, the MBI is owned by a commercial company and researchers must pay for its use (Halbesleben & Demerouti 2005; Kristensen, Villadsen & Christensen, 2005).

In 1996 the MBI- Human Services Survey (HSS) was developed to assess burnout in human service workers (Maslach, Jackson & Leiter, 1996). The MBI-HSS is virtually identical to the Educator's Survey (ES) except "recipients" is replaced by "students" (Maslach, Jackson & Leiter, 1996). MBI- Human Services Survey (HSS) and the MBI-Educator's Survey (ES) contain three scales: emotional exhaustion, depersonlization, and (reduced) personal accomplishment.

Researchers have noticed that burnout was not prevalent in only human service jobs (Fusilier & Manning, 2005). This has lead Maslach, Jackson & Leiter (1996) to develop the MBI- General Survey (GS). Schaufeli and Buunk (2003) state the MBI-General Survey - (GS) is more generic, can be used across many professions and includes three scales: exhaustion, cynicism and (reduced) professional efficacy. However, Lee and Ashforth (1990) state that the item wording can be seen as problematic. The wording within all version of the MBI has been criticized for not containing both positively and negatively worded questions (Demerouti & Nachreiner, 1996; Lee & Ashforth, 1990)

The Copenhagen burnout inventory. The Copenhagen Burnout Inventory (CBI) is a new, public domain burnout questionnaire that is used to overcome the shortcomings of the MBI and MBI-GS was developed as part of the PUMA study investigating burnout among human service worker in Copenhagen (Kristensen et al. 2005). Milfont, Denny,Ameratunga, Robinson and Merry (2008) describe the CBI by saying:

> The CBI is a 19-item questionnaire measuring three burnout sub-dimensions. The personal burnout scale has six items and measures the degree of physical and

psychological fatigue and exhaustion experienced by a person regardless of their participation in the workforce (i.e., a generic burnout scale). The work related burnout scale has seven items and measures the degree of physical and psychological fatigue related to work. The client-related burnout scale has six items and measures the degree of physical and psychological fatigue experienced by people who work with clients (p 172).

The Oldenburg burnout inventory. The Oldenburg Burnout Inventory is a burnout assessment instrument that been constructed and validated among different German occupational groups (Demerouti, 1999; Demerouti & Nachreiner, 1998; Demerouti, Bakker, Vardakou & Kantas, 2003). This instrument contains positive and negative associations to assess exhaustion and disengagement. Therefore, the Oldenburg Burnout Inventory (OLBI), by using positive associations, can assess the opposite of burnout or work engagement (González-Romá, Schaufeli, Bakker, & Lloret, 2006). The OLBI includes affective but also physical and cognitive aspects, and extends the concept of depersonalization beyond distancing oneself emotionally from recipients to work objects and work content (Bakker & Heuven, 2006). Furthermore, studies have shown that using both the MBI and OLBI in the same research study produces similar results although the tools are designed much different from each other. This finding confirms that both tools are valid and acceptable in the use of assessing burnout (Demerouti et al., 2003). Lastly, the ease of accessing the OLBI and it's free use makes it one step ahead of the MBI and the MBI-GS (General Survey) (Halbesleben & Demerouti, 2005)

Sport Management and Burnout

"Sport management is a multidisciplinary field that integrates the sport industry and management (Lussier & Kimball, 2009, p.5)." Sport managers include but are not limited to, general managers, athletics directors, operational managers, sport marketers, recreational management and event managers (Lussier et al., 2009). For the current study, a sport manager is an athletic director managing an athletic trainer in the collegiate setting.

Managing people is an important portion of a sport manager's responsibility (Gupta, 2005). The productivity of the people in the sport entity is important to accomplish the organization's objectives (Lussier et al., 2009). Immediate supervisors, such as sport managers, are directly responsible for the employees by assigning tasks and ensuring completing of those tasks (Leiter, Gasco´n & Martinez-Jarreta, 2010). The employee's relationship with their supervisor has implications for their sense of well-being and self-efficacy (Laschinger & Finegan, 2005; Leiter & Harvie, 1998). Managers and supervisors should be trained to recognize the signs and symptoms of burnout in order to help intervene with preventative measures (Maslach et al., 2008; Thomas & Lankau; 2009).

Athletic Training Profession

An athletic trainer is an allied health care professional that is licensed by individual states or certified by the National Athletic Trainers Association. The Strategic Implementation team of NATA (2007) states athletic training is practiced by athletic

trainers (health care professionals) who collaborate with physicians to optimize activity and participation of patients and clients. Athletic training encompasses the prevention, diagnosis and intervention of emergency, acute and chronic medical conditions involving impairment, functional limitations and disabilities. There are five domains in regards to role delineation as described by the NATA BOC (Board of Certification, 2004). These domains are: Prevention; clinical evaluation and diagnosis; immediate care; treatment, rehabilitation and reconditioning; organization and administration and professional responsibility.

Athletic training and sports medicine dates to Greek civilizations that used a physician type person to help treat injuries related to athletic competitions (Prentice, 2009). The profession of athletic training came about in the early 19th century (Prentice, 2009).The development of the profession corresponded with the establishment of intercollegiate sports teams in the United States (Prentice, 2009). The National Athletic Training Association was formed in 1950 to set professional standards for the athletic training profession (O'Shea, 1980). The first official census of the National Athletic Trainers Association (NATA) was conducted in 1974, with 4,500 members. Today there are over 32,000 members, which does not include the athletic trainers that are only licensed to practice by individual states.

The job responsibilities of an athletic trainer vary depending on the setting in which the athletic trainer is employed. Traditionally, athletic trainers have been employed in the educational setting such as high schools, colleges, universities and professional

sports. The National Athletic Trainers Association (NATA) website lists additional emerging settings such as hospitals, clinics, industrial, occupational, military, performing arts, physician extender and public safety (Job Settings, n.d.). The main job responsibility of any athletic trainer is the prevention, assessment, treatment and rehabilitation of athletic injuries (Job Settings). However, the specific way an athletic trainer accomplishes this task will depend upon the setting in which they are employed. Athletic trainers in a high school setting are responsible for the athletes within the school district. These athletic trainers are responsible for the athletes during their practices and games throughout the week. In addition, athletic trainers will be responsible to travel with sport teams to away games. The job responsibilities for athletic trainers in the collegiate setting are similar to those in high school. However, the athletic trainer in a high school setting is usually responsible for more athletes at one time than those in a collegiate setting. Clinical athletic trainers usually have the responsibility of injury education as well as home exercise program prescription. Athletic trainers in this role may also be responsible for fitting braces, casting, wound care as well as any other duties prescribed by the physician. Lastly, certified athletic trainers are responsible for the education of undergraduate and graduate athletic trainers. Specifically, athletic training educators teach assessment, treatment and rehabilitation of athletic injuries. Management of athletic training programs is also an important class taught by certified athletic trainers.

Minimally, all athletic trainers must possess a bachelor's degree from an accredited college or university (Apply for a New License, n.d.; Athletic training

education overview, 2009). The licensure and certification paths vary depending on the laws of the Department of Health in each state and the individual candidate's desires. A candidate may choose to attend a Commission on Accreditation of Athletic Training Education accredited school (CAATE) for an undergraduate degree in Athletic Training (Apply for a New License, n.d.). At a Commission on Accreditation of Athletic Training Education (CAATE) school the student will complete an entry level athletic training program on the undergraduate or graduate level (Apply for a New License, n.d.; Athletic training education overview, 2009). Once the program is complete the candidate will be eligible to sit for the National Athletic Trainer's Association Board of Certification (NATABOC) exam. Once the candidate completes and passes the National Athletic Trainers Association- Board of Certification (NATABOC) exam they will receive a certification to practice athletic training on a national level (Athletic training education overview, 2009; Apply for a new license, n.d.).

As an alternative, a candidate may choose to attend a college or university that is not a Commission on Accreditation of Athletic Training Education (CAATE) school. Candidates in this category must follow the laws and regulations set forth by the state in which they choose to practice athletic training. In the state of Texas, a candidate shall hold a baccalaureate or post-baccalaureate degree which includes at least 24 hours academic credit from each of the following course areas: (A) human anatomy; (B) health, disease, nutrition, fitness, wellness, emergency care, first aid, or drug and alcohol education; (C) kinesiology or biomechanics; (D) physiology of exercise; (E) athletic

training, sports medicine, or care and prevention of injuries; (F) advanced athletic training, advanced sports medicine, or assessment of injury; and (G) therapeutic exercise or rehabilitation or therapeutic modalities (Apply for a New License - Requirements, n.d.). In addition, a person must have completed an apprenticeship program in athletic training that (a) consists of 1800 clock-hours completed in college or university intercollegiate sports programs; (b) is based on the academic calendar; (c) is completed during at least five fall and/or spring semesters; and (d) is completed while enrolled as a student at a college or university for at least 1500 of the 1800 clock-hours (Apply for a New License - Requirements, n.d.). Once these requirement have been met the candidate may apply and sit for the Texas Department of State Health Services, Advisory Board of Athletic Trainer's licensure exam. When the candidate successfully passes the exam they will receive a license to practice athletic training in the state of Texas only. In Texas, Candidates who have earned a National Athletic Trainer's Association Board of Certification (NATABOC) may apply for the Texas Department of State Health Services, Advisory Board of Athletic Trainer's licensure exam (Apply for a New License - Requirements). In Texas a person must hold a license when employed as an athletic trainer. Possessing a National Athletic Trainer's Association- Board of Certification (NATABOC) certificate only does not authorize a person to practice athletic training in Texas.

The athletic training profession is demanding in many ways. Often athletic trainers work long hours, in inclement weather conditions with less than comparable pay,

the athletic trainer to athlete ratio is high, there is a lack appropriate resources and many hours are spent on the road traveling with the sport team (Malasarn, Bloom & Crumpton, 20002; Mazerolle et al., 2008). Often, there are multiple obligations and potential for "divided loyalties" of the athletic trainer to parents, coaches, physicians, and organizations (Swisher, Nyland, Klossner & Beckstead, 2009).

Studies have shown a mismatch in reward with burnout (Maslanka, 1996; Witaker, 1995; Blix, Cruise, Mitchell & Blix, 1994). No matter the type of reward, financial or social, an insufficiency in this area increases a person's susceptibility to burnout (Leiter & Maslach, 1999). The most common theme among athletic trainers is that most jobs do not pay for the amount of work that is done (Mazerolle, Bruening, Casa & Burton, 2008). Researchers have found a correlation between low salaries and job satisfaction (Gruneberg, 1979; Hoppock, 1977; Lawler, 1971; Schultz & Schultz, 1998; Barrett, Gillentine, Lamberth & Daughtrey, 2002). In addition, the lack of control of work schedules, inflexible work schedules, locus of control and long work hours were primary reasons for athletic trainers to contemplate leaving the profession entirely (Staurowsky et al., 1998; Mazerolle et al., 2008). The salary of athletic trainers differs depending on the setting for which they are employed. In 2008, the NATA news published the results of their salary survey (Commons). The data showed the average salaries among athletic trainers in various work settings, education levels, and years of experience as well as state of residence. The average salary of an athletic trainer on the university level was $39, 285 per year in 2008. This number increased to $47, 822 per

year for athletic trainers working in a public high school setting. Additionally, athletic trainers working in an outpatient clinic earn a $ 47, 180 yearly salaries. Although these salaries seem fair and in range with other professionals in allied health, it is important to evaluate both hours worked with salary earned. Without significant progress, trained, veteran and educated athletic trainers may leave the profession for careers that have more flexibility and better salaries.

The time that athletic trainers spend at work can diminish their ability to complete personal and family needs outside of the work environment. Researchers have found that many athletic trainers feel that the time commitment for this profession creates a work family conflict (Pitney, 2006; Scriber et al., 2005). Capel (1990) first examined the lack of personal time as a reason an athletic trainer left the profession to pursue other employment and has been shown to lead to attrition as well. Women's role in athletic training as well as their family life has been a source of research for the last several years (Henning & Weidner, 2006). Traditionally, women have been responsible for the majority of the family related responsibilities. With the athletic training profession consuming more time than traditional employment, these responsibilities become hard to complete. Essentially, if an athletic trainer experiences more work / family conflict, then their job satisfaction will decrease while their job burnout and intention to leave the organization will increase (Mazerolle et al., 2008). Barret et al. (2002) states that "the profession of athletic training has the responsibility of identifying new ways to advance in the area of human resources and job satisfaction, thus propagating a satisfied, well

adjusted, balanced and dedicated professional which can successfully progress into the 21st century" (p.11).

With the downturn in the economy, all businesses will begin to look at expenses that should be cut from their budget. Budget cuts will affect athletic trainers in various settings, specifically those athletic trainers who are employed by government agencies and school districts. Researchers have investigated the lack of resources in the athletic training profession (Pitney, 2006). Many athletic trainers are limited in the amount of supplies they may purchase and must rely on donations and creativity to extend through the school year. Additionally, many school districts find it difficult to purchase equipment needed for treatment of athletic injuries. E-stim/ultrasound machines are expensive and may not be affordable. Lastly, small universities may be unable to employee more than one to two atheltic trainers. The lack of staff can cause stress on the atheltic trainer, when having to work harder and longer to meet the needs of the athletes (Peltzer, Mashego & Mabeba, 2003).

Athletic Training Education Program

Since 2000, the structure of the athletic training field has changed. Many university and college athletic trainers now have the added responsibility of directing or teaching in an athletic training education program that may be added to their additional requirements as an athletic trainer. These additional requirements have added a new dimension to the burnout assessments of athletic trainers. Walter et al. (2009) were the first researchers to study this new dimension and state that athletic training education

program directors (ATEPDs) are unique as they must manage the program students, administration, scholarships, athlete and patient care, serve on committees, mentor students and conduct research. Walter et al. (2009) used the MBI-Educators Survey to assess burnout in undergraduate athletic training education program directors. The authors found that the ATEPDs reported moderate levels of burnout in emotional exhaustion but found low levels of burnout in depersonalization and personal accomplishment. Additionally, Giacobbi (2009) found that athletic trainers who worked within colleges and universities experienced more burnout than athletic trainers who worked in secondary school or clinical settings. Lastly, Walter et al. (2009) found that female collegiate athletic training education program directors experienced greater emotional exhaustion than their male counterparts.

Burnout in Athletic Training

Initially, burnout in athletic trainers was studied by Gieck, Brown and Shank (1982) who believed the cause of athletic training burnout was due to constantly having to give of himself to the athletes, coaches, administrators and doctors. The excitement of the job draws young people in, but rarely are athletic training students exposed to the factors that cause burnout within the profession. Gieck et al. (1982) describes the psychological manifestations of this burnout as anxiety, depression, fatigue and sleeplessness. Gieck et al. (1982) also suggested modifiers such as having an active lifestyle, social encounters, flexibility on the job and vacation. However, this research was conducted several years before a reliable instrument was created to survey burnout.

Other pioneers in the research of athletic training burnout include Campbell, Miller and Robinson (1985) and Capel (1986). These researchers took a different approach as Campbell et al. (1985) included medical conditions and Capel (1986) studied the relationship of organizational and psychological of burnout in athletic trainers. Similarly, both sets of researchers used a tool to assess burnout. The Athletic Training Burnout Scale (ATBS) includes a total of 43 questions in regards to feelings concerning their job, as well as a demographic and medical condition survey (Campbell et al., 1985). The researchers believed to have a valid and reliable instrument, but did not find a significant relationship between the 43 questions and the demographic variables. However, the researchers did find that those athletic trainers, who scored high on the ATBS, also had two or more medical conditions (Campbell et al., 1985). Lastly, Campbell et al. (1985) has been the only researcher to include medical conditions in their assessment of burnout. These authors found that 60% of athletic trainers surveyed were burned out and that those athletic trainers who had a high incidence of burnout also had a significantly higher incidence of medical symptoms that are usually related to burnout. Giacobbi (2009) took a random sample of athletic trainers from a variety of occupational settings just as Campbell et al. (1985). However, Giacobbi (2009) findings were quite different from that of Campbell et al. (1985). Although the authors did not limit their study to an occupational setting, Giacobbi, (2009) found that athletic trainers were generally less burned out than most health care professionals in other occupational

settings. Giacobbi (2009) states this variation in findings may be due to the non random sample obtained by previous researchers.

Capel (1986) used the Maslach Burnout Inventory, a role conflict, role ambiguity scale, a locus of control scale, and a demographic data sheet to assess burnout in her research. The most significant finding from this early research was the relationship between role conflict and burnout in athletic trainers (Capel, 1986). This finding has lead other researchers to expand role conflict in the study of burnout in athletic trainers (Kania et al., 2009; Hendrix et al., 2000; Mazerolle et al., 2008; Henning & Weidner, 2006). Lastly, Capel (1986) found NCAA Division II and III athletic trainers experienced a higher level of burnout than NCAA Division I. High school athletic trainers experienced the least burnout out of the three groups.

Instruments

Although athletic training may fit into the human service worker category of professions, the profession has very unique and distinguishable factors. These factors include an unpredictable and inflexible work schedule, high stress, working with many athletes, little resources, travel, opposition of coaches and administration in decision making and working in a multifaceted role (Scriber & Alderman, 2005). Due to the unique factors surrounding the athletic training profession, authors have utilized various inventories to assess burnout.

The Athletic Training Burnout Inventory (ATBI) was the first athletic training specific survey used to assess burnout in the profession (Campbell et al.,1985). However,

due to its validity and reliability in assessing burnout, The Maslach Burnout Inventory (MBI) has been used frequently to predict burnout in the collegiate athletic training profession (Campbell et al., 1985; Capel, 1986; Giacobbi, 2009; Kania et al., 2009).

The Athletic Training Issues Survey (ATIS) is an adapted version of the Coaching Issues Survey (CIS) that has also been used to examine stress and burnout in athletic trainers in conjunction with the Maslach Burnout InventoryMBI (Hendrix et al., 2000). The ATIS is a valid instrument that specifically questions athletic trainers about stressful situations such as: budget limitations, personality conflicts with coaches and not having time to themselves (Hendrix et al., 2000). Hendrix et al. (2000) additionally utilized Smiths' (1986) theoretical model for burnout as well as perceived stress questionnaire to assess burnout in athletic trainers from NCAA division I who maintained a football program.

Lastly, an alternative version of the MBI, MBI-HSS, was used to assess burnout in NCAA collegiate athletic trainers (Kania et al., 2009). The finding of these studies are inconclusive. Some researchers suggested that the surveys used to assess burnout were not senstitive to the stressors unique to the athletic training profession, studies were not longitudinal in nature and did not include a non-random sample (Kania et al., 2009; Giacobbi, 2009).

Workplace Demographics

Capel (1986) was the first researcher to assess National Collegate Atheltic Association (NCAA) division level and its effects on burnout within the profession.

Capel (1986), using the MBI, found that NCAA Division II and III athletic trainers experienced a higher frequency of burnout followed by NCAA Division I. However, NCAA division level has not proved to be a significant factor in subsequent research studies (Giacobbi, 2009; Kania et al., 2009; Christensen, 1997). This may be attributed to the use of different instruments to assess burnout, the use of non-random samples or the non-longitudinal nature of the studies. Hendrix et al. (2000) suggests that conducting research across seasons may help to determine variances in athletic trainer burnout. Research in this area most commonly includes only in NCAA division I-A athletic trainers from various locations throughout the United States. Researchers have noted the importance of assessing a burnout trend among all National Collegiate Athletic Association (NCAA) division levels (Clapper & Harris, 2008). Hendrix et al. (2000) state that division I universities are typically able to finance athletic trainers to service all university sponsored teams. In contrast the smaller universities may expect the athletic training staff to serve the athletes without the necessary financial support.

The setting in which an athletic trainer is employed has been shown to have an effect on their level of burnout. Athletic trainers working in collegiate settings have been shown to experience high burnout (Giacobbi, 2009; Hendrix et al., 2000). This high incidence of burnout could be attributed to job related stressors, low paying salary, staff shortages, lack of control over work schedules, working overtime and addressing crises (Peltzer, Mashego & Mabeba, 2003; Maslach & Florian, 1988). Additionally, collegiate athletic trainers have different experiences and demands than athletic trainers in other

setting. These experiences and demands include, but are not limited to, traveling, large number of athletes and CAATE program responsibilities (Giacobbi, 2009). More research is needed to assess the difference between the settings.

Hendrix et al. (2000) found that athletic trainers appeared to score higher on the depersonalization of burnout than teachers in higher education, doctors and nurses, but only slightly higher than coaches. This may occur due to the quantity of athletes athletic trainers are in contact with daily, the number of hours spent in the athletic training room and the various professional relationships involved in the occupation. Kania et al. (2009) found positive correlations between workload and burnout. The researcher indicates that as the number of sports an athletic trainer was responsible for increased so did their level of depersonalization. However, conflicting to the previous findings, the researchers found an increase in personal accomplishment as number of sports an athletic trainer is responsible for increased. This finding could be attributed to an increase chance of personal accomplishment in conjunction with more opportunities to interact with more athletes (Kania et al., 2009; Capel, 1986). Unlike other healthcare and educational settings, the athlete to athletic trainer ratio averages 80: 1 (NCAA, 2004).

Athletic trainers often have the responsibility of clearing an athlete to return to play. This is a high pressure and stressful situation, especially in times of great consequence such as a playoff game, when an athlete in not fully healed. Kania et al. (2009) found a significant interaction of burnout constructs and the pressures of coaches. Athletic trainers who felt more pressure from a coach to medically clear an athlete were

more like to experience emotional exhaustion and depersonalization. Additionally, there is a negative effect of personal accomplishment and the pressure of coaches. As the pressure of the coach increases, the feeling of personal accomplishment decreases (Kania et al., 2009). Conflict of athletic trainers with the coaching staff has been shown as a reason for an athletic trainer to leave the profession (Capel, 1990).

The salary of an athletic trainer and the lack of resources they obtain to complete their job duties have been shown to attribute to burnout. Fruedenberger (1974) states that burnout is exacerbated by situations in which a person expends much effort in a job and receives minimal financial compensation. Kania et al. (2009) found the average salary of the athletic trainers surveyed was $35,000 per year and the average hours worked were greater than 60 per week. The data shows that based on the number of hours worked, the athletic trainers surveyed only earned twelve dollars an hour. Furthermore, many athletic trainers state that they do not feel that the administration provides the proper resources (equipment, supplies and staff) in order for their job to be accomplished efficiently and effectively (Pitney, 2006). However, the many administrators still expect the athletic trainer to complete their job working 60 hours a week at twelve dollars an hour.

Personal Demographics

Peltzer, Mashego & Mabeba (2003) have suggested that health care workers are more likely to experience burnout in the first 5 years of their career. Athletic trainers may not learn in their training the expectations and time commitments of the profession. Athletic training education program directors that have a tenure status and more years of

experience reported lower emotional exhaustion levels than those on the tenure-track and with less years of experience. (Walter et al., 2009). However, Giacobbi (2009) did not find a significant interaction between the length of time in the athletic training profession and any constructs of burnout (depersonalization, emotional exhaustion and personal accomplishment). Additionally, athletic trainers may have not had enough time to learn coping strategies within the first 5 years of their careers.

Although the burnout construct of emotional exhaustion has been reported to be higher in older individuals, age was unrelated to burnout in several research studies (Campbell et al., 1985; Maslach et al., 1981; Burke, 1989; Kania et al., 2009; Capel, 1985; Capel, 1990; Hendrix, Acevedo & Hebert,2000). Kania et al. (2009) attributes this finding to a low number of atheltic trainers in their study with less than 5 years of expereince Clapper et al. (2008) did find a significant difference in the age of the atheltic trainer and the burnout construct of organization support. The younger the athletic trainer, the less the athletic trainer perceived they have organizational support . Age was significantly related to an increase in emotional exhaustion in a burnout study conducted with athletic training program directors (Walter et al., 2009). This finding could be attributed to their increased clinical and non-clinical responsibilities. Marital status was unrelated to burnout in several studies (Campbell et al., 1985; Clapper et al., 2008; Kania, Meyer & Ebersole, 2009).

Maslach and Jackson (1985) suggest that women more often than men, become emotionally involved with their work. The research is not clear as to the effect of gender

on the constructs of burnout. Several researchers found no significant correlation between gender and burnout (Clapper et al., 2008; Hendrix et al., 2000; Kania et al., 2009; Maslach, 1993; Maslach et al., 2001). However, some researchers found that women report burnout more often than men in other health care professions, especially with the emotional exhaustion construct (Bekker, Croon & Bressers, 2005; Giacobbi, 2009; Lindblom, Linton, Fedeli & Bryngelsson, 2006). Maslach et al., (1985) suggest women are more likely to become emotionally involved with the problems of their clients or patients thereby overextending themselves emotionally and experiencing burnout. This correlates to the significant findings of female athletic trainers who scored higher on the emotional exhaustion construct of burnout (Giacobbi, 2009). Kania et al. (2009) claims this finding could be due to the socialization of female athletic trainers in a male-dominated setting. Men were also found to have a significantly higher level of vigor and dedication than women in terms of occupational engagement (Giacobbi, 2009). Occupational engagement is opposite of burnout and involves energy, learning, personal or occupation development, job involvement, and occupational efficacy (Maslach & Leiter, 1997). These personal characteristics could help male athletic trainers prevent the chance of experiencing burnout.

Personality

Athletic trainers have been shown to have relatively high levels of hardiness (Hendrix et al. , 2000). A hardy personality works well with the athletic training profession as athletic trainers are often asked to work in environments that change often

and continue to provide quality care to athletes. Additionally, individuals with higher levels of hardiness have been found to have significantly lower stress levels (Hendrix et al., 2000; Smith, 1986). Knowing that perceived stress causes an increase in the emotional exhaustion component of burnout, hardiness becomes an important personal characteristic (Hendrix et al., 2000). Even with hardiness as a personal characteristic, burnout is always a potential threat to ATC's due to chronic stress in the profession (Roth, Wiebe, Filligim, & Shay, 1989).

Summary

The athletic training profession can be stressful, inconsistent, demanding, time consuming and exhausting (Mazerolle et al., 2008; Clapper et al., 2008). Due to these unique characteristics, burnout within the profession is a concern for researchers (Campbell et al. 1985; Clapper, et al.2008; Hendrix et al., 2000; Kania et al., 2009). It is these unique characteritics that makes burnout harder to distinguish as well as harder to examine. The Athletic Training Burnout Inventory (ATBI) is a reliable and valid instrument that has been developed to examine burnout in Division I National Collegiate Athletic Association (NCAA) (Clapper et al., 2008). This instrument has been used to examine a small percentage of the athletic trianing population. In order to develop strategies to help prevent bunrout among all atheltic trainers, more research is needed within all athletic training occupational settings.

CHAPTER III

METHODS

The purpose of this study was to examine the level of reported burnout scores between licensed and/or certified athletic trainers in division I, division II and division III National Collegiate Athletic Association universities in the United States using the Athletic Training Burnout Inventory. Specifically, this study examined the effect of collegiate division level, salary, number of athletes under direct care, number of teams under direct care, number of hours worked per week, number of hours teaching per week on burnout scores.

Participants

The population of interest for this study included all licensed and/or certified athletic trainers who are employed in a NCAA division I, division II or division III universities or colleges in the United States. In October 2011, there were 6,500 total athletic trainers employed by colleges and universities in the United States. Fifteen percent of the athletic trainers employed in NCAA work in division III (1000), while 30 percent work in division II (2000) and 55 percent work in division I (3500).

A stratified random sample of participants was selected from each division level (Div I, II and III). The desirable sample size of the smallest group, division III, was

calculated using a 95% confidence level and 5% margin of error, to predict the largest sample size needed, 278 (Field, 2009). The number of survey invitations sent in division III was calculated by dividing a forty percent response rate from the 278 responses desired from division III.

The previous calculations show that seventy percent from the population of division III athletic trainers would receive a survey. This was applied to division II and division I to determine sample size expected, sample size desired and number of surveys sent. These results of sample size and number of surveys can be found in Table 1.

Table 1
Sample Size and Number of Surveys

Division Level	**Sample Size Expected**	**Surveys Sent**
Division I	973	2433
Division II	556	1390
Division III	278	695

Procedure

A list of licensed athletic trainers was obtained through a collegiate directory as well as a list of certified athletic trainers from the National Athletic Trainers Association. These resources provided the name, college, division level, phone number, address and e-mail address of the athletic trainers.

An invitation to participate in the study as well as a link to the survey was e-mailed to those athletic trainers meeting selection criteria: randomly selected licensed and/or certified athletic trainers who are employed in a NCAA division I, division II or division III universities or colleges in the United States. This invitation described the purpose of the study, subject selection criteria, description of the survey procedures, informed consent, confidentiality and voluntary participation/withdrawal. Completion and submission of the survey represented the participants' informed consent to participate in this study.

The participant was then asked to visit a secure only site (psychdata.com) to complete the survey if they choose. Schmidt and Tingling (1997) and Parent and Wade (2003) have outlined the benefits of conducting survey research on the internet and argues that the Web presents survey researchers with an unprecedented tool for the collection of data. Advantages of online research include increased probability of collecting data across a wide range of participants, decreased costs of both time and money for publishing a survey on the Web, data entry stage is eliminated for the survey administrator and software can ensure that the data acquired from participants is free from common entry errors (Llieva, Baron, & Healey, 2002; Schmidt, 1997). It was estimated that the survey took approximately 10 minutes to complete. Anonymity was preserved as no names were attached to the survey. All information was recorded and stored securely in the online Psychdata database.

Ilieva, Baron and Healey (2002) state that the average response time for an online survey is 5.59 days. Pealer, Weiler, Pigg, Miller and Dorman (2001) found an average return time of their e-mail study to be about 7.3 days. Therefore participants were given 2 weeks to complete the survey. A reminder e-mail was sent when the majority of participants completed the survey, around 7 days, then again at 10 days and lastly at 13 days. Sending a follow-up e-mail right after the majority of respondents have reacted to the initial mailing has been identified as essential for maximizing the response rate (Dillman, 2000). A thank you e-mail was sent to all participants thanking them for their participation in the study. The survey invitation and thank you letter may be found in Appendix B.

Instrumentation

The Athletic Training Burnout Inventory

Daniel C. Clapper MS, ACT and Laura L. Harris, PhD, ATC obtained and modified the Maslach Burnout inventory (MBI), with permission from the Consulting Psychologists Press Mountain View, CA, to make the survey more applicable to the collegiate athletic training profession (Clapper et al., 2008; Capel,1990; Hendrix et al., 2000; Campbell et al., 1985). First, the researchers converted the original Maslach Burnout Inventory (MBI) scale of 0-6 to a 1-6 scale for the modified version, where 1 indicated *never true* and 6 indicated *always true*. Additionally, the researchers modified the Maslach Burnout Inventory (MBI) to use a scale that was consistent throughout the new instrument and the three constructs (*emotional exhaustion and depersonalization,*

level of stress and level of organizational support) were collapsed into one complete instrument (Clapper et al., 2008). The second construct of level of stress was included to indicate workload, number of athletes, total contact hours and co-worker relationships that might affect the burnout of athletic trainers (Clapper et al., 2008). The constructs for personal achievement were deleted and replaced with items addressing level of organizational support and demand (Clapper et al., 2008). This modified instrument includes four constructs of burnout: emotional exhaustion/depersonalization, administrative responsibility, time commitment and level of organizational support (Clapper et al., 2008). Lastly, questions that specifically addressed athletic trainers employed in CAATE-accredited programs were repositioned and shaded to simplify the instructions (Clapper et al., 2008). These modifications became the instrument survey know as the Athletic Training Burnout Inventory (ATBI). Content validity was established through feedback of ten athletic trainers who supplied comments regarding the format and understanding of each item. Furthermore, internal validity of each construct was established at a Cronbach α of .80 or more. Lastly, each item within the construct was analyzed with an item-to-total correlation of .25 or more (Clapper et al., 2008). If correlations for a specific item produced a low Cronbach α, then those items were revised or deleted from the instrument.

The Athletic Training Burnout Inventory (ATBI) was used to assess burnout for this study due to the reliability of the instrument found in Clapper et al. (2008). The researcher obtained permission from Daniel C. Clapper MS, ACT and Laura L. Harris,

PhD, ATC to use their version of the Athletic Training Burnout Inventory. The e-mail of permission can be found in Appendix F. This researcher revised the Likert scale of the Athletic Training Burnout Inventory (ATBI) to be more readily interpretable for the participants. The 6 point Likert scale ranges from strongly disagree to completely agree.

Cronbach's α is one of the most commonly used reliability coefficients for written instruments and was calculated to re-test reliability of this written instrument (Field, 2009). Burnout constructs were split, positively phrased questions were reverse scored and Cronbach's α was calculated for each construct (Cronbach, 1951). Additionally, a Cronbach's α was provided for each item on the instrument by SPSS. A Cronbach's α of 0.8 or higher on each item and construct indicated good reliability. An instrument item was deleted or altered if the overall Cronbach's α increased with its deletion. Instrument validity was checked by athletic trainers who were currently employed in the profession.

Lastly, the participants were asked to complete a demographic questionnaire. The questionnaire assessed demographic factors related to the management of athletic trainers. This researcher has replaced the original age range question to an open-ended response as suggested by Clapper et al. (2008). This will enable the researcher to assess the relation of age to burnout constructs, in more detail (Clapper et al., 2008). The Athletic Training Burnout Inventory and Demographic Survey that will be used for this study can be found in Appendix A on page 68.

Statistical Analysis

Basic descriptive statistics concerning collegiate athletic trainers and burnout were generated from the demographic and ATBI questionnaire data, i.e., frequency distributions and measures of central tendencies (mean, median, and mode), and measures of dispersion (range, variance, and standard deviation, skewness and kurtosis).

Clapper et al. (2008) found mean scores and standard deviation for each construct of burnout using the ATBI and a similar demographic questionnaire. The Athletic Training Burnout Inventory Construct descriptive statistics can be found in table 2.

Table 2
Athletic Training Burnout Inventory Construct Descriptive Statistics

	Average Minimum	**Average Maximum**	**Mean**	**SD**
Emotional Exhaustion and Depersonalization	1.22	4.57	2.56	0.69
Administrative Responsibility	1.00	5.11	3.19	0.87
Time Commitment	2.00	6.00	4.25	0.59
Organizational Support	1.47	3.89	2.54	.059

Athletic Training Burnout Inventory Scale: 1=Never true, 2=Mostly not true, 3=Sometimes not true, 4= Sometimes true, 5= Mostly true, and 6= Always true

Cut scores have not been created for assessing burnout with the ATBI (Clapper et al., 2008). In order to determine prevalence of burnout in collegiate athletic trainers, similar averages have been calculated for the current study. A participant was considered "burned out" with an average high score in emotional exhaustion/ depersonalization,

administrative responsibility and time commitment (4 or greater) and a low average score in organizational support (3 or less). The number of participants who met these criteria were divided by the total number of participants and multiplied by 100. This percentage was considered the prevalence of burnout among the participants. This prevalence was not calculated using cut scores, but was compared to previous a previous study using the ATBI.

A one-way MANOVA was used to evaluate the mean difference of each burnout construct (exhaustion/ depersonalization, administrative responsibility, time commitment and level of organization support) between athletic trainers in division I, II and III. It is important to use MANOVAs instead of ANOVAs due to the increased chance of making a Type I error with multiple ANOVAs (Field, 2009). Additionally, correlations between the dependent variables were described by using a MANOVA. The data was checked for univariate outliers by using z-scores, histograms and Q-Q plots. The data was also checked for multivariate outliers by using Mahalanobis' distance. Values were checked against critical value of chi square and outliers were removed. Analyses were run a second time with outliers removed. Linearity was checked between all 3 dependent variables by using scatter plots and Pearson correlation. A preliminary check using Levene's test produced non-significant results for homogeneity of variance. Homogeneity of covariance was checked by using Box's M test if since sample sizes are not equal. This researcher expected unequal samples sizes due to the stratified random sampling method. Multicollinearity was assessed by viewing a correlation matrix provided by SPSS. Alpha

was set at .05 and criteria to reject the null was set at $p \leq .05$. A multivariate F was calculated using Pillai's Trace to assess the difference of athletic trainers from div I, II and II on the omnibus DV, emotional exhaustion, level of stress and level of organization support combined. Pallai's Trace was recommended for it robustness when groups differ on more than one variable (Fields, 2009). Significant multivariate F-values were followed up by univariate tests of each dependent variable (Fields, 2009). If univariate tests were significant then a Bonferroni post hoc test was used test a significant difference between the mean scores of significant ANOVA univariate tests (Fields, 2009).

An independent factorial MANOVA was used to determine the effect of 4 groups of 2 independent variables each: Position title/ salary, number of hours worked per week/ number of hours teaching per week, number of athletes responsible for/ number of teams responsible for and number of full time athletic trainers/ number of support staff on the 4 dependent variables; constructs of burnout (emotional exhaustion, time commitment, administrative responsibility and organization support). Fields (2009) recommends using a factorial MANOVA as independent variables usually affect more than just one dependent variable and the use of multiple one-way MANOVA's causes an inflation of making a Type I error (Fields, 2009). Alpha was set at .05 and criteria to reject the null was set at $p \leq .05$. The data was checked for univariate outliers by using z-scores, histograms and Q-Q plots. The data was also checked for multivariate outliers by using Mahalanobis' distance. Values were checked against critical value of chi squared and outliers were removed. Analysis was run a second time with outliers removed. Linearity

was checked between all 3 dependent variables by using scatter plots and Pearson correlation. Normal distribution was checked by using histograms and Q-Q plots. A preliminary check using Levene's test produced non-significant results for homogeneity of variance. Multicollinearity was assessed by viewing a correlation matrix provided by SPSS. Emotional exhaustion and depersonalization were combined as one construct (dependent variable) to reduce the chance of singularity. Additionally, level of stress was split into administrative responsibility and time commitment for the same reason (Clapper et al., 2008).

First a multivariate interaction was checked for significance ($P<.05$). Those found significant were evaluated for univariate interactions. If the multivariate interaction was non-significant ($P>.05$), then an evaluation of the multivariate main effect occurred. If the multivariate main effect was significant then there was an evaluation of the corresponding univariate main effect. If a univariate interaction was significant then an evaluation of a simple effects analysis for the dependent variable took place (Fields, 2009). If the univariate interaction was non-significant then an interpretation of the univariate main effects occured (Fields, 2009). If the multivariate main effect was significant then Pillai's Trace was used to evaluate a multivariate interaction. Pallai's Trace was recommended for it robustness when groups differ on more than one variable (Fields, 2009). The researcher also expected sample sizes among groups to be unequal due to the stratified random sampling method. Since sample sizes differed Box's M test

was utilized to examine the assumption of equal covariance matrices (Fields, 2009). A significance value of .001 was used for the Box's test.

Summary

The data analyzed in this study enables the researcher to examine the relationship between the variables surveyed and constructs of burnout. This research intended to be more inclusive than previous studies by including athletic trainers in division I, II and III of National Collegiate Athletic Association. It is the hope of the researcher that the data will help generalize the findings to the population of collegiate athletic trainers. The values of Cronbach's α for emotional exhaustion/ depersonalization, administrative responsibility and time commitment indicate good reliability for these constructs only.

CHAPTER IV

RESULTS

Introduction

Research regarding burnout in the athletic training profession is limited. Furthermore, research regarding burnout within the collegiate athletic training profession is further limited. The primary purpose of this research was to examine the level of reported burnout scores between licensed and/or certified athletic trainers in National Collegiate Athletic Association universities in the United States using the Athletic Training Burnout Inventory. This research included all three division levels on the National Collegiate Athletic Association from all states in the United States, in order to obtain a clearer picture of how burnout impacts these athletic trainers. Of the 4,518 invitations sent, 298 athletic trainers completed the survey. This resulted in a 6.5 % response rate. Statistical data analyses that were used included descriptive statistics, one way MANOVA and independent factorial MANOVA. All data analyses were conducted using the SPSS version 20. A significance level of $p < .05$ was used for all analyses.

Demographics

A total of 4,518 invitations and consents to participate in this study were sent by email to a stratified random list of National Collegiate Athletic Association athletic trainers. Of the 4,518 invitations sent, 298 athletic trainers completed the survey. This

resulted in a 6.5 % response rate. Attempts were made to increase this response rate. The researcher attempted to increase the response rate by sending a reminder e-mail at seven days, then again at ten days and lastly at 13 days. Division I athletic trainers returned 160 (54.6%) surveys; division II returned 54 (18.4%) and division III 72 (24.5%). Response rate for division I was 6.57%, division II was 3.94% and division III was 10.35% as shown in Table 3.

Table3
NCAA Division Mean, Percentage and Response Rate

Division	**N**	**%**	**Response Rate**
Division I	160	54.6	6.57%
Division II	54	18.4	3.94%
Division III	72	24.5	10.35%

A total of four surveys were not used for the statistical analysis because they were completed by participants who did not meet the requirements. Two surveys were completed by athletic training students, one was completed by a high school athletic trainer and the last was completed by an athletic trainer who is employed at a junior college. The demographic information received from the questionnaire included National Collegiate Athletic Association division level, salary, current position, hours worked per week as an athletic trainer, hours teaching athletic training related courses per week

number of athletes and teams under direct care and number of full time and support staff athletic trainers on staff.

The majority of the athletic trainers participating in the survey earned between $30,001 and $40,000 per year (n=85, 28.9%). The second most frequently reported salary range was $40,001 to $50,000 per year (n=66, 22.4%) was. A summary of the current salary responses can be found in Table 4.

Table 4
Current Salary Range

Salary	N	%
$20,000 or less	30	10.2
$20,001 - $30,000	23	7.8
$30,001 - $40,000	85	28.9
$40,001 - $50,000	66	22.4
$50,001 - $60,000	42	14.3
$60,001 or more	41	13.9

As to the current position as an athletic trainer, 54.1% of the athletic trainers responded indicated that their current position is assistant athletic trainer (n=159) and 25.2% indicated they are employed as a head athletic trainers (n=74). Graduate assistant athletic trainers comprised 10.2% of the total (n=10.2), 5.1% were clinical directors/

coordinators or specialists (n=14), 4.1% were program directors (n=12) and 1.4% considered themselves a position not included (n=4). The athletic trainers and their current positions can be found in table 5.

Table 5
Current Position as an Athletic Trainer

Title	N	%
Head athletic trainer	74	25.2
Assistant athletic trainer	159	54.1
Graduate Assistant athletic trainer	30	10.2
Clinical director/ coordinator/ specialist	15	5.1
Program director	12	4.1

When reporting hours worked per week the majority of respondents indicated they work 51-60 hours (35%, n=103). This was followed by 20.1 % of the respondents report they work 41-50 hours per week (n=59) and 19.4 % of the respondents report they work 61-70 hours per week (n=57). Those athletic trainers who work 30-40 hours per week were 8.5 % of the sample (n=8.5). Lastly athletic trainers who indicted they work 29 or less (7.8%, n=23) or 71 or more (6.8%, n=20) make up the smallest percentages of the population. The results of the hours worked per week as an athletic trainer can be found in table 6.

When reporting hours teaching academic classes the majority of the sample responded they teach 29 or fewer hours per week (65.3%, n=192). This was followed by 30.3 percent of the sample responding they do not teach classes at their respective institutions (n=89). Those athletic trainers who teach 30-40 hours per week are 2.7 percent of the athletic trainers sampled (n=8). The smallest groups sampled are those who teach 41-50 (1%, n=3), 51-60 (0.3%, n=1) and 61-70 hours per week (0.3%, n=1). These results of hours worked per week can be found in table 6.

Table 6
Hours Worked as an Athletic Trainer per Week and Hours Spent Teaching per Week

Hours AT	**N**	**%**	**Hours Teaching**	**N**	**%**
29 or less	23	7.8	29 to 1	192	65.3
30-40	25	8.5	30-40	8	2.7
41-50	59	20.1	41-50	3	1
51-60	103	35	51-60	1	0.3
61-70	57	19.4	61-70	1	0.3
71 or more	20	6.8	No Teaching	89	30.3

Participants were asked to report how many athletic teams were under their direct care. The majority of the participants responded they are responsible for 1-2 teams (40.5%, n=119), 26.5% responded they are responsible for 3-4 teams (n=78), 20.4% responded they are responsible for 7 or more team (n=60), 8.2% responded they are

responsible for 5-6 teams (n=24) and 4.4% responded they are responsible for no teams (n=13). The results of number of athletic team under the athletic trainer's direct care can be found in table 7.

Table 7
Number of Athletic Teams under Direct Care

Number of Teams	N	%
1-2	119	40.5
3-4	78	26.5
5-6	24	8.2
7 or more	60	20.4
0	13	4.4

Participants were also asked to report the number of athletes under their direct care. The majority of participants indicated having 100 or more athletes (38.4%, n=113) and 19.7% indicated having 26-50 athletes (n=58). A smaller percentage (15.6%) of the participants indicated they are responsible for 51-75 athletes (n=46) and 15% indicated they are responsible for 76-100 athletes (n=44). Lastly 7.5 % indicated they are responsible for 25-1 athletes (n=22). The remaining participants indicated they are responsible for no athletes (3.7%, n=11). The results of number of teams under the athletic trainer's direct care can be found in table 8.

Table 8
Number of Athletes under Athletic Trainer's Direct Care

Number of Athletes	N	%
25 to 1	22	7.5
26-50	58	19.7
51-75	46	15.6
76-100	44	15.0
100 or more	113	38.4
0	11	3.7

Finally, when asked how many full time athletic trainers are on their staff the majority of the participants reported 3-5 (51.4%, n=151), 27.2 % reported 6 or more (n=80), 19% reported two or less (n=56) and 2.4% reported zero (n=7). When asked how many support athletic trainers (graduate assistant, coordinators etc.) are on their staff the majority responded with 2 or less (33.7%, n=99), 27.6 % reported 3-5 (n=81), 13.3% reported zero (n=39), 11.6% reported 6-8 (n=34), 8.8% reported 10 or more (n=26) and 5.1% reported 9-10 (n=15). The results of number of full time and support staff and certified athletic trainers on staff can be found in table 9.

Table 9
Number of Full Time and Support Staff Certified Athletic Trainers on Staff

Full Time AT's	**N**	**%**	**Support Staff AT's**	**N**	**%**
2 or less	56	19.0	2 or less	99	33.7
3-5	151	51.4	3-5	81	27.6
6 or more	80	27.2	6-8	34	11.6
0	7	2.4	9-10	15	5.1
			10 or more	26	8.8
			0	39	13.3

The Athletic Training Burnout Inventory

The results from the Athletic Training Burnout Inventory were calculated using SPSS version 20. The scored of each construct of burnout were summed respectively, with values closer to six representing a higher degree of a specific construct and values closer to one representing a lower degree of a specific construct. A participant is considered "burned out" with an average high score in emotional exhaustion/ depersonalization, administrative responsibility and time commitment (4 or greater) and an average low score in organizational support (3 or less). The mean (SD) value for the construct of emotional exhaustion/ depersonalization was 3.0 (0.7). The mean (SD) value for the construct of administrative responsibility was 3.5 (1.1). The mean (SD) value for

the construct of time commitment was 4.3 (1.1). The mean (SD) value for the construct of organizational support was 3.4 (0.4). Cronbach's α for emotional exhaustion/ depersonalization, administrative responsibility, time commitment, organizational support were .808, .812, .806 and .277 respectively. The Cronbach's α for organizational support (α=.277) is low for reliability standards. Many of the questions within this contruct are reversed phrased in order to help reduce response bias. However, it is possible that the questions were phrased in a way that confused the participant. Items should be identified as suspect within the organizational support construct and items should be discarded or revised to increase comprehension. These issues should be addressed before any further administrations of the instrument occur.

Table 10
Burnout Construct Descriptive Statistic

Burnout Construct	**Mean**	**Standard Deviation**	**Cronbach's Alpha**
Emotional Exhaustion/ Depersonalization	3.0	0.7	.808
Administrative Responsibility	3.5	1.1	.812
Time Commitment	4.3	1.1	.806
Organizational Support	3.4	0.4	.277

Prevalence of Burnout

A participant is considered "burned out" with an average high score in emotional exhaustion/ depersonalization, administrative responsibility and time commitment (4 or greater) and a low average score in organizational support (3 or less). The number of participants who meet this criterion is 20. This number is divided by the total population number and then multiplied by 100. The percentage of 6.8 % is the prevalence of burnout among the participants.

Common Burnout Construct

A one-way MANOVA was used to evaluate the mean difference of each burnout construct (exhaustion/ depersonalization, administrative responsibility, time commitment and level of organization support) between athletic trainers in division I, II and III.

A multivariate F was calculated using Pillai's Trace to assess the difference of athletic trainers from division I, II and II (IV) on the omnibus DV, emotional exhaustion, level of stress and level of organization support combined. Results from the Multivariate Analysis of Variance, using Pillai's Trace, indicate no significant effect of National Collegiate Athletic Association division level (division I, division II and division III) on the constructs of burnout (Emotional exhaustion/ depersonalization, administrative responsibility, time commitment and organizational support), V=0.057, F (12, 862) = 1.89, $p > .05$. The results of effect of NCAA division level on the constructs of burnout can be found in table 11.

Table 11

Effect of NCAA Division Level on Constructs of Burnout

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.957	1608.294[b]	4.000	286.0	.000
	Wilks' Lambda	.043	1608.294[b]	4.000	286.0	.000
	Hotelling's Trace	22.494	1608.294[b]	4.000	286.0	.000
	Roy's Largest Root	22.494	1608.294[b]	4.000	286.0	.000
NCAA Collegiate Division employed	Pillai's Trace	.057	1.389	12.000	864.0	.165
	Wilks' Lambda	.944	1.385	12.000	756.9	.168
	Hotelling's Trace	.058	1.378	12.000	854.0	.170
	Roy's Largest Root	.029	2.110[c]	4.000	288.0	.080

a. Design: Intercept + V42_InwhichNCAACollegiateDivisionareyouemployedasanathletic

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Table 12
NCAA Division Level Descriptive Statistics

	In which NCAA Collegiate Division are you employed as an athletic trainer?	**Mean**	**Std. Deviation**	**N**
Emotional Exhaustion/ Depersonalization	___Division I	2.9449	.68390	160
	___Division II	2.9719	.71650	54
	___Division III	2.9453	.64329	72
	Other (please specify)	3.2643	.66750	7
	Total	2.9576	.67828	293
Admin Respons	___Division I	3.3412	1.08404	160
	___Division II	3.6037	1.19147	54
	___Division III	3.6333	1.15112	72
	Other (please specify)	3.6857	1.26416	7
	Total	3.4696	1.12813	293
Time Commit	___Division I	4.2578	1.04664	160
	___Division II	4.3519	1.27893	54
	___Division III	4.3993	1.06452	72
	Other (please specify)	3.9643	1.03510	7
	Total	4.3029	1.09432	293
Org Support	___Division I	3.4329	.37779	160
	___Division II	3.3270	.44091	54
	___Division III	3.4357	.39663	72
	Other (please specify)	3.4571	.56562	7
	Total	3.4146	.39947	293

Factors that Contribute to Burnout

An independent factorial MANOVA was used to determine the effect of four groups of 2 independent variables each: position title/ salary, number of hours worked per week/ number of hours teaching per week, number of athletes responsible for/ number of teams responsible for and number of full time athletic trainers/ number of support staff on the 4 dependent variables. The dependent variables are the constructs of burnout (emotional exhaustion/ depersonalization, time commitment, administrative responsibility and organization support). Alpha was set at .05 and criteria to reject the null was $p \leq .05$.

The first factorial MANOVA, using Pillai's trace, showed no significant interaction between number of full time athletic trainers/ number of support staff on each burnout construct (emotional exhaustion/ depersonalization, time commitment, administrative responsibility and organizational support), F (32,1108) =1.228, p >.05. Follow up univariate tests for the main effect of number of full time athletic trainers showed to be non significant, p>.05. Contrasts revealed that the main effect of number of support staff was significant, F (12, 828) =1.777, p <.05, and shows that those athletic trainers who have no support staff (M=3.886) feel a higher amount of administrative responsibility than those who have ten or more (M=2.931).

The second factorial MANOVA, using Pillai's, trace showed no significant interaction effect between number of athletes responsible for/ number of teams responsible for on each burnout construct, F (48,1088) =1.55, p >.05. The main effects of number of athletes responsible for, F (16, 1088) =1.080, and the main effect of number of

teams responsible for, F (20, 1088) =0.918, on the burnout constructs were both non-significant, p >.05.

The third factorial MANOVA, using Pillai's trace, produced a non significant interaction effect between average number of hours worked per week and the average number of hours spent teaching academic courses only per week on the constructs of burnout, F(40, 1088)=1.276, p >.05. Additionally, the same test produced a non significant main effect for the average number of hours spent working as an athletic trainer per week on the constructs of burnout, F (24, 1088) = 1.328, p >.05. However, a significant main effect was found for the average number of hours spent teaching academic courses only per week on the constructs of burnout, F (20,1088)= 1.713, p<.05. A test of between subjects and pairwise comparison show that those athletic trainers who spent an average of 61-70 hours per week (M=4.56) teaching academic courses had a significantly lower feeling of organizational support than those who teach no hours (M=3.338), 29 to 1 (M=3.498), 30-40 (M=3.461), 41-50 (M=3.647) and 51-60 (M=2.940) hours per week. Additionally, those athletic trainers that teach 29 to 1 (M=3.574) hours per week felt a significantly higher level of administrative responsibility than those that teach no hours (M=3.095) per week. Lastly, those athletic trainers who teach 61-70 (M=4.751) hours per week felt a significantly higher level of emotional exhaustion/ depersonalization than those athletic trainers who teach no hours, 29 to one (M= 2.95) and 30-40 (M=3.321) hours per week.

The fourth factorial MANOVA, using Pillai's trace, produced a non significant interaction effect between position title and salary on the constructs of burnout, F (56, 1076)=1.198, p >.05.Additionally, the same test produced a non significant main effect for position title on the constructs of burnout, F (12, 804)= 0.851, p >.05. However, a significant main effect was found for the effect of yearly salary on the constructs of burnout, F (24, 1076) =1.771, p <.05. A test of between subjects and pairwise comparison show that those athletic trainers who make $20,001 -$30,000 (M=4.689), $40,001-$50,000 (M=4.456) and $50,001-$60,000 (M=4.416) per year felt a significantly higher level of time commitment that those athletic trainers who make $20,000 or less ($M$=3.192) per year. Additionally, those athletic trainers who make $40,001- $50,000 ($M$=3.658) and $50,001-$60,000 (M=3.847) per year felt a significantly greater administrative responsibility than those athletic trainers that make $20,000 or less ($M$=2.494) per year. The significant findings of this study are summarized in Table 13.

Table 13
Significant Findings

Factor	**Burnout Construct**	**Description**
Support Staff	Administrative Responsibility	Athletic trainers with no support staff feel a greater amount of administrative responsibility than those with ten or more support staff.
Teaching Academic Classes	Administrative Responsibility	Athletic trainers who teach 1-29 hours per week feel a greater amount of administrative responsibility than those who do not teach.
Yearly Salary	Time Commitment	Athletic trainers who earn $20,001-$60,000 per year felt a greater amount of time commitment than those who earn $20,000 per year or less.
Yearly Salary	Administrative Responsibility	Athletic trainers who earn $40,001-$50,000 per year felt a greater amount of administrative responsibility than those who earn $20,000 per year or less

CHAPTER V

DISCUSSION

This chapter presents a discussion and conclusions drawn from the analysis of data. Furthermore, limitations to the study will be presented. Lastly, recommendations for further research will be suggested.

A total of 4,518 invitations and consents to participate in this study were sent by email to a stratified random list of National Collegiate Athletic Association athletic trainers. Of the 4,518 invitations sent, 298 athletic trainers completed the survey. This resulted in a 6.5 % response rate.

This research proves to be fairly similar to other related research in this field. Prevalence of the sampled surveyed showed to be 6.8%. Although, prevalence of burnout was not found to be high in this study, it continues to be a question that does not have a clear answer. This study showed of the eight factors examined, only three significantly contributed to an increase in a burnout construct; support staff, number of hours teaching and yearly salary. In order to have a clear understanding of the true affect of factors on burnout, it is important to continue to develop reliable and valid tools as well as obtain a larger data set.

Prevalence of Burnout

Cut scores have not been created for assessing burnout with the Athletic Training Burnout Inventory (Clapper et al., 2008). The current research developed cut off points to determine higher than average and lower than average scores based on previous research studies (Clapper et al., 2008). In order to determine prevalence of burnout in collegiate athletic trainers, similar averages were calculated for the current study. A participant was considered "burned out" with an average high score in emotional exhaustion/ depersonalization, administrative responsibility and time commitment (4 or greater) and a low average score in organizational support (3 or fewer). Results of the study indicate that 6.4% of the participants reported feelings of higher than average emotional exhaustion/ depersonalization, time commitment, administrative responsibility and lower than average organizational support. This percentage is consistent with many of the studies in this area (Kania et al., 2009; Walter et al., 2009; Capel, 1986; Giacobbi, 2009).

Low levels of burnout among athletic training research have been previously attributed to a few factors. First, the voluntary nature of the study and the inability to mask the purpose of the research may have overwhelmed those athletic trainers who were already experiencing burnout (Kania et al., 2009). Lastly, researchers find that selective dropout and the "healthy worker effect" skew the findings (Karasek & Theorell, 1990; Schaufeli & Buunk, 2003). Maslach et al., (2001) coined this effect as a survival bias, meaning burnout leaves behind the survivors or those who do not experience burnout.

These finding are encouraging to the profession, however due to the small response rate of this study is it difficult to describe these results as valid and reliable. Consistency within adminstration of a burnout tool would decrease the confusion related to examiniation with multiple instruments. Furthermore, continued administrations of the Athletic Training Burnout Inventory will provide researchers access to a large amount of data in regards to athletic trainers and burnout. When a large enough data set exists, cut scores can be developed and true prevalence of burnout within the Athletic Training Profession can then be assessed (Clapper et al., 2008).

National Collegiate Athletic Association Division Level

Collegiate division level is one factor that has not been given adequate attention in athletic training burnout research (Kania et al., 2009). The results of this study show no significant effect of National Collegiate Athletic Association division level (division I, division II and division III) on the constructs of burnout (emotional exhaustion/ depersonalization, administrative responsibility, time commitment and organizational support). The results of NCAA division level descriptive statistics and NCAA Division Level Multivariate Test are presented in table 12. As before, due to the low response rate significant conclusions are difficult. Although the response rate might indicate that the current sample does not accurately represent the population, the current sample is markedly similar to the samples of other research studies (Kania et al., 2009). With this being said, there continues to be no significant effect of National Collegiate Athletic

Association division level on burnout (Giacobbi, 2009; Kania et al., 2009; Christensen, 1997).

Although the burnout scores were not significantly different among the three division levels, the means for the four constructs were above average as compared to previous research (Clapper et al., 2008). Time commitment was shown to be the burnout category with the highest mean among all three divisions. These findings are similar to results reported in other athletic training burnout studies (Clapper et al., 2008; Capel, 1986; Capel, 19990; Hendrix et al., 2000).

Factors that Contribute to Burnout

This study examined eight factors related to the position of athletic training: position title, salary, number of hours worked per week, number of hours teaching per week, number of athletes responsible for, number of teams responsible for, number of full time athletic trainers and number of support staff. The factors were separated into related groups in order to determine any interaction effects as well as main effects. Of the eight factors examined, only three significantly contributed to an increased in a burnout construct: support staff, number of hours teaching and yearly salary.

Support staff was described as part time and full time athletic trainers, such as graduate students and program directors. Support staff was analyzed as a factor due to possible difference between the divisions of National Collegiate Athletic Association. Small universities may be unable to employe more than one to two athletic trainers. The lack of staff can cause stress on the atheltic trainer, when having to work harder and

longer to meet the needs of the athletes (Peltzer, Mashego & Mabeba, 2003). There is a lack of research that includes size of athletic trianing staff. Furthermore, no studies have made a distinction of the two categories. Administrative responsibility is described as a work related responsibility such as pressure to get things done and amount of paper work (Clapper et al., 2008).

Results of this study show athletic trainers have a significantly higher feeling of administrative responsibility when they have no support staff as compared to having ten or more support staff. A review of descriptive statistics show that division I athletic trainers in this survey have the most support staff at ten or more. Additionally, division III athletic trainers in this study have the fewest support staff at 2 or less. This supports the common thought that smaller universities are unable to employ as many athletic trainers as the larger universities (Peltzer, Mashego & Mabeba, 2003). This finding was not supported in previous research. It is important to acknowledge that administrative responsibility is a burnout construct that was modified and split from an original construct level of stress, due to a theme that developed from previous research (Clapper et al., 2008). Level of stress became two distinctive constructs: time commitment and administrative responsibility. Further investigation of administrative responsibility and support staff, especially in division III National Collegiate Athletic Association athletic trainers, is needed to help support the current findings as well as to decreased the possibility of burnout in this group. Athletic administration should consider the need for graduate assistant in all division levels if future research continues to show support staff

to have a significant effect on an athletic trainer's feelings of administrative responsibility.

This research found that those athletic trainers who spent an average of 61-70 hours per week teaching academic courses had a significantly lower feeling of organizational support that those who teach 0-60 hours per week. Similar research did not significantly predict an increase in a burnout construct (Kania et al., 2009). Although this finding was statistically significant, there was only one athletic trainer who stated they taught 61-70 hours per week. The majority of athletic trainers in this study teach 29 or zero hours per week. Further administration of this instrument as well an increased response rate would help researchers understand how increased teaching hours affect the feelings of organizational support in athletic trainers.

This research also found that those athletic trainers who teach 29 or fewer hours per week felt a significantly higher level of administrative responsibility than those that teach no hours per week. These two group of athletic trainers consisted of 95% of the sample surveyed. This helps researchers understand that additional responsibility of teaching does increase the feelings of administrative responsibility in athletic trainers. With the addition of education programs at universities, often athletic trainers are expected to add the teaching responsibilities to their already large workload. Universities often hire athletic training program directors to facilitate the education program as well as clinically practicing athletic training (Walter et al., 2009). However, this is not always the case and sometimes the athletic trainers already in place at the university must be

responsible for both roles. Consecutive administrations of the Athletic Training Burnout Inventory with high return rates will help researchers understand this issue better. Furthermore, it is suggested that future research amend the group into smaller subsets and concentrate the hours from 0-40.

Lastly, those athletic trainers who teach 61-70 hours per week felt a significantly higher level of emotional exhaustion/ depersonalization than those athletic trainers who teach 0-40 hours per week. As before, this finding was statistically significant, but there was only one athletic trainer who stated they taught 61-70 hours per week. The majority of athletic trainers in this study teach 29 or fewer hours per week. Further administration of this instrument as well an increased response rate would help researchers understand how increased teaching hours affect the feelings of emotional exhaustion/ depersonalization in athletic trainers.

This study revealed that yearly salary level significantly affects the feeling of time commitment and administrative responsibility of athletic trainers. The average salary for an athletic trainer was found to be $ 30,000-$40,000 per year. Athletic trainers who make $20,001-$60,000 per year felt a significantly higher level of time commitment that those athletic trainers who make $20,000 or less per year. Fifty four percent of athletic trainers who completed this study consider assistant athletic trainer as their position title. However, ten percent of these athletic trainers considered themselves graduate assistant athletic trainers. Graduate assistants often make a stipend instead of a salary and may work less hours than their full time counterparts. Furthermore, graduate assistants may

share job responsibilities with an assistant or head athletic trainer. Graduate assistants may feel more time pressures by completing school work than by their job as an athletic trainer. These factors could contribute to those athletic trainers who make a lower salary feeling less time constraints.

Lastly, athletic trainers who earn $40,000-$60,000 per year felt a significantly greater administrative responsibility than those athletic trainers that make $20,000 or less per year. Administrative responsibility continues to be a new construct of burnout and will require further administrations of the Athletic Training Burnout Inventory before results can be generalized to the athletic training profession. However, administrative responsibility was the most common construct found to be statistically significant in this research.

Limitations

The response rate for this research was lower than 10%. Therefore, the non response error for this research is high and could potentially limit the generalizability of the findings. Furthermore, the low response rate could also lead to an underestimation of the prevalence of burnout or show non-prevalence of burnout in this study. The researcher attempted to increase the response rate by sending a reminder e-mail at 7 days, then again at 10 days and lastly at 13 days. Sending a follow-up e-mail right after the majority of respondents have reacted to the initial mailing has been identified as essential for maximizing the response rate (Dillman, 2000). Additionally, the researcher

intentionally phrased the survey invitation as "a study of the NCAA Athletic Training profession" in an attempt to reduced participation bias.

The timing of the survey could have caused a decrease in the response rate. The researcher sent an invitation for the participants near the first part of February 2012. It is possible that many athletic trainers had many beginning of the year obligations and team obligations that could have decreased the available time they had to complete the survey. Also, early research indicates that a person's job satisfaction varies throughout the year (Judge & Lock, 1993). However, examination of demographic information from previous research, with a 33% response rate, is fairly consistent with demographic information obtained from the current research (Kania et al., 2009). These results can be found in table 14, Comparative Statistics. Cook, Heath, and Thompson (2000) argue that response representativeness is more important than response rate in survey research. Cook et al., (2000) note that response rate is important if it bears on representativeness.

Table 14

Comparative Statistics

Demographic	**Kania et al., 2009**			**Current Research**		
		n	**%**		**n**	**%**
NCAA Division	DivI	109	52.9%	DivI	160	54.6%
	DivII	36	17.5%	DivII	54	18.4%
	DivIII	61	29.6%	DivIII	72	24.5%
Salary	< $20,000	21	10.2%	$20,000 or less	30	10.2%
	$20,000-$29999	35	17.0%	$20,001 - $30,000	23	7.8%
	$30,000-$39,999	74	35.9%	$30,001 - $40,000	85	28.9%
	$40,000-$49,999	35	17.0%	$40,001 - $50,000	66	22.4%
	>$50,000	41	19.9%	$50,001 - $60,000	42	14.3%
				$60,001 or more	41	13.9%
Employment Status	Head Athletic Trainer	67	32.5%	Head athletic trainer		25.2%
	Associ. Athletic Trainer	17	8.3%	74		
	Assistant Athletic Trainer	95	46.1%	Assistant athletic trainer		54.1%
				159		
	G.A Athletic Trainer	21	10.2%	Graduate Assistant		10.2%
				30		
				Clinical director coordinator specialist		5.1%
				15		
				Program director		4.1%
				12		

Furthermore, it is possible that this study was subject to what is called the 'healthy worker effect". More healthy workers are investigated because those who are extremely affected may not be working. This situation is likely to result in an underestimation of the prevalence of burnout (Schaufeli &Enzmann, 1998; Schaufeli & Buunk, 2003). Maslach et al., (2001) have coined this effect as a survival bias, meaning burnout leaves behind the survivors or those who do not experience burnout.

Lastly, due to the low Cronbach's α of the burnout contruct of organizational support, the reliability of the measurement of the construct is low. Therefore, this study did not obtain a reliable estimate of the athletic trainer's feeling of organization support. Clapper et al. (2008) previously analyzed the construct of organizational support in their first pilot of the Athletic Training Burnout Inventory. Clapper et al.,(2008) found eight items as suspect and 6 were revised for the final pilot test. Two items remained unchanged as the researchers believed the items would test better in a larger population (Clapper et al., 2008). Many of the questions within this contruct are reversed phrased in order to help reduce response bias. However, it is possible that the questions were phrased in a way that confused the participant.

Recommendations for Future Research

First, it is recommended that the invitation to participate in the study should be sent during two unique periods of an athletic trainer's work year. First, most athletic trainers in the National Collegiate Athletic Association are busiest during the fall season while football is in season. Then, as the year progresses, the work load tends to decrease.

Having information on an athletic trainers potential feelings of burnout during the fall semester and the late spring semester, not only provides more data to analyze but it can also help the researcher compare burnout during the two unique time periods. Second, the burnout construct of organizational support needs further review. The reliability of organizational support for this study was low. However, a review of previous research found low reliability of this construct as well (Clapper et al., 2008). Further investigation of the items within the construct before the next administration is necessary to increase Cronbach's α. Furthermore, a larger sample could help future researchers obtain a larger Cronbach's α

Third, continued administration of the Athletic Training Burnout Inventory as well as a larger data set will help future researchers create cut scores (Clapper et al., 2008). Creating cut scores will help the researcher be able to assess true burnout within the profession of athletic training.

Fourth, qualitative analysis is a type of research that has not been of focus in this area. The advantage of qualitative research allows the researcher a deeper investigation with the sample they have chosen. Furthermore, it allows the researcher to discuss specific topics with the participant in order to narrow the potential causes for burnout within the profession.

Lastly, once the issues with possible instrument reliability are resolved, amending the Athletic Training Burnout Inventory for settings outside the National Collegiate Athletic Association should be considered. It is possible that athletic trainers outside

collegiate athletics share the same issues of burnout. The Athletic Training Burnout is the first instrument to help examine burnout in the athletic training profession and should continue to be developed to be inclusive of all athletic training employment settings.

Recommendations for Practical Application

First it is recommended that athletic department officials continue to look for research in this field. Athletic trainers are members of a large team that are employed to help the athletic department succeed. If the athletic trainer is burned out then, then it may be difficult for them to provide the care an athlete needs to succeed. Previous research has indicated that people in the helping professions have an increased chance for burnout (Fruedenberger, 1974). Although this research does not identify a prevelence of bunrout within the profession, it does significant show several factors that increase the constructs of burnout significantly. The research continues to progress toward creating cut scores for assessment of burnout. Once cut score are created true prevalence of burnout can be assessed within athletic departments. The Athletic Training Burnout Inventory can help detect signs of burnout in athletic trainers. If signs of burnout are detected early, administration can help the athletic trainer implement techniques to reduce burnout.

The value of graduate assistants within the athletic training department should be considered in the National Collegiate Athletic Association. Depending on the institution where employed, graduate student often receive a tuition waiver and/ or a stipend as compensation (Offerman, 2011). This is a cost effective way for athletic training departments to increase their staff size and to disperse the workload among staff.

Conclusion

This research proved to be fairly similar to other related research in this field. Although prevalence of burnout was not found significant in this study, it continues to be a question that does not have a clear answer. This study showed of the eight factors examined, only three significantly contributed to an increased in a burnout construct; support staff, number of hours teaching and yearly salary. In order to have a clear understanding of the true affect of factors on burnout it is important to continue to develop reliable and valid tools as well as obtain a larger data set.

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APPENDIX A

Survey Instrument and Demographic Survey

APPENDIX A

This questionnaire is designed to assess attitudes you currently have regarding your current position as a Certified Athletic Trainer (ATC). Please read each item carefully and decide to what extent you feel this way about your current position. Please read each item carefully.

If you have never experienced the stated feeling, check the box marked "strongly disagree". If you do experience the feeling, then indicate "to what degree" you experience the feeling by selecting the appropriate number from the six-point scale.

	Directions: Please place an "X" in the appropriate box for each question.	Strongly Disagree					Strongly Agree
		1	2	3	4	5	6
1	I feel emotionally drained from performing the duties of an athletic trainer.	☐	☐	☐	☐	☐	☐
2	I feel emotionally exhausted when I leave work.	☐	☐	☐	☐	☐	☐
3	I feel fatigued when I think about facing another day of work.	☐	☐	☐	☐	☐	☐
4	I treat some of my athletes as if I don't care about them.	☐	☐	☐	☐	☐	☐
5	Working with athletes all day has become a real strain for me.	☐	☐	☐	☐	☐	☐
6	I feel I have a positive influence on my athletes.	☐	☐	☐	☐	☐	☐
7	I have become more calloused when dealing with athletes.	☐	☐	☐	☐	☐	☐
8	I worry that athletic training is hardening me emotionally.	☐	☐	☐	☐	☐	☐
9	I feel very energetic while working with my athletes.	☐	☐	☐	☐	☐	☐
10	I feel I am at the end of my rope professionally.	☐	☐	☐	☐	☐	☐
11	I don't really care what happens to some of my athletes.	☐	☐	☐	☐	☐	☐

	Directions: Please place an "X" in the appropriate box for each question.	Strongly Disagree					Strongly Agree
		1	2	3	4	5	6
12	Some of my athletes blame me for their injuries.	☐	☐	☐	☐	☐	☐
13	I feel I have a positive influence on my coaches.	☐	☐	☐	☐	☐	☐
14	I feel I am working too hard with my teams.	☐	☐	☐	☐	☐	☐
15	I feel that I have too many athletes under my direct care.	☐	☐	☐	☐	☐	☐
16	I feel overwhelmed by the duties I am required to perform.	☐	☐	☐	☐	☐	☐
17	I wish I had more one-on-one time with my athletes.	☐	☐	☐	☐	☐	☐
18	I have too much paperwork.	☐	☐	☐	☐	☐	☐
19	I feel I have too many clinical responsibilities	☐	☐	☐	☐	☐	☐
20	I work too many weekends and holidays.	☐	☐	☐	☐	☐	☐
21	I wish I could spend more time with my family.	☐	☐	☐	☐	☐	☐
22	I always feel rushed to get things done.	☐	☐	☐	☐	☐	☐
23	I put in too many hours providing athletic training services	☐	☐	☐	☐	☐	☐

	Directions: Please place an "X" in the appropriate box for each question.	Strongly Disagree					Strongly Agree
		1	2	3	4	5	6
24	I have a positive professional relationship with my coaches.	☐	☐	☐	☐	☐	☐
25	I feel I am paid adequately.	☐	☐	☐	☐	☐	☐
26	The athletic department does not value the athletic training program.	☐	☐	☐	☐	☐	☐
27	I feel my job expectation have not been clearly communicated by the administration.	☐	☐	☐	☐	☐	☐
28	I feel inferior when I ask a coworker(s) a question.	☐	☐	☐	☐	☐	☐
29	I am allowed to make decisions about my athlete(s) without asking my supervisor(s).	☐	☐	☐	☐	☐	☐
30	I feel coaches have unrealistic expectations of my job responsibilities.	☐	☐	☐	☐	☐	☐
31	I am afraid of making mistakes while performing my athletic training duties.	☐	☐	☐	☐	☐	☐
32	I am not allowed to utilize all of my knowledge while treating an athlete.	☐	☐	☐	☐	☐	☐
33	I clearly understand the level of responsibility I have regarding the treatment of an athlete.	☐	☐	☐	☐	☐	☐
	Directions: Please place an "X" in	**Strongly**					**Strongly**

	the appropriate box for each question.	Disagree					Agree
		1	2	3	4	5	6
34	My supervisor(s) communicate changes in our policies and procedures	☐	☐	☐	☐	☐	☐
35	The athletic training department communicates to me any changes in the treatment protocol of athletes.	☐	☐	☐	☐	☐	☐
36	My coach(es) respect my decisions	☐	☐	☐	☐	☐	☐
37	Coaches do not reinforce the importance of treatment when athletes become non-compliant.	☐	☐	☐	☐	☐	☐
38	My coach(es) blame me for some of my athletes' injuries	☐	☐	☐	☐	☐	☐
39	I am not expected to report new injuries to the head athletic trainer.	☐	☐	☐	☐	☐	☐

Please click to the next page and complete questions 40-48 on the Demographic Information Page.

Demographic Information

These items are intended to provide information about yourself and your current position as a certified athletic trainer.

40) What is your current salary range?

___$20,000 or less
___$20,001 - $30,000
___ $30,001 - $40,000
___$40,001 - $50,000
___ $50,001 - $60,000
___$60,001 or more

41) In which NCAA Collegiate Division are you employed as an athletic trainer?

___Division I

___ Division II

___Division III

___ N/A

42) What title do you hold in your current position as an athletic trainer?
___ Head athletic trainer
___ Assistant athletic trainer
___ Graduate Assistant athletic trainer
___Clinical director/ coordinator/ specialist
___ Program director
___ Other

43) What is the average hours per week you spend working as an athletic trainer (exclude hours teaching) in the NCAA division marked above?
___ 29 to 0
___30-40
___41-50
___51-60
___61-70
___71 or more

44) What is the average hours per week you spend teaching an academic course ONLY in the NCAA division marked above?

___ 29 to 0
___30-40
___41-50
___51-60
___61-70
___71 or more

45) Number of athletic teams under your direct care

___1-2
___3-4
___5-6
___ 7 or more

46) Number of athletes under your direct care

___25 or less
___26-50
___51-75
___76- 100
___ More than 100

47) How many full time, certified/ licensed athletic trainers are currently on your staff (not including students, graduate assistants, clinical directors and program directors). You should include yourself if you fit the above criteria.

___2 or less
___3-5
___ 6 or more

48) How many certified/ licensed athletic trainers are currently on your support staff (this should include part time and full time athletic trainers such as graduate assistants. This does not include other athletic trainers such as the head or assistant athletic trainers, students, clinical directors and program directors). You should include yourself if you fit the above criteria.

___2 or less
___3-5
___ 6 -8
___9-10
___ 10 or more

This concludes the questionnaire. Thank you for the time and effort you put into this research study.

APPENDIX B

Survey Invitation Letter

Dear NCAA Athletic Trainer:

This survey is designed to examine NCAA athletic training profession. The results of this study will be used in completion of the dissertation requirement for completion of my doctoral degree in Sport Management from Texas Woman's University.

The study will involve completing an on-line survey that should only take 10-15 minutes of your time. It is important you read and understand the following information as it pertains to the informed consent issues related to the study. Please understand that all of your responses will be completely anonymous.

Participation in this study is voluntary and you may withdrawal at any time. Participants must be 18 years of age or older and active members of the athletic training profession (not retired status or students).

The return of your completed questionnaire constitutes your informed consent to act as a participant in this research. There are no foreseeable risks associated with participation in this research project. The benefits of this study include contributing to a small amount of research previously completed in this area. No previous research has compared athletic trainers in all three NCAA divisions.

Please e-mail the researcher if you have questions about the survey or have problems accessing the instrument.

To complete the survey, please click on the following link:

https://www.psychdata.com/s.asp?SID=144313

Should you have questions regarding the study of survey items, please contact:

Misti K. Knight, M.S., L.A.T. Principal Investigator, at misti.knight@tccd.edu or

Kimberly Miloch, Ph.D., Major Professor at KMiloch@twu.edu

Sincerely,

Misti K. Knight MS, LAT

Kimberly Miloch, Ph.D.

APPENDIX C

Reminder E-mail

Dear NCAA Athletic Trainer:

This is a friendly reminder that the on-line survey in regards to athletic trainers in the NCAA is still open. You have (4, 1) more days to complete the survey. I would like to thank you in advance for participating and contributing to the growth of the profession.

To complete the survey, please click on the following link:

https://www.psychdata.com/s.asp?SID=144313

Should you have questions regarding the study of survey items, please contact:

Misti K. Knight, M.S., L.A.T. Principal Investigator, at misti.knight@tccd.edu or

Kimberly Miloch, Ph.D., Major Professor at KMiloch@twu.edu

Sincerely,

Misti K. Knight MS, LAT

Kimberly Miloch, Ph.D.

APPENDIX D

Thank You Letter

Dear NCAA Athletic Trainer:

Thank you for your participation in this study. The information you shared will contribute to a better understanding of athletic trainers who work in the NCAA.

If you are interested in receiving more information regarding the results of this study, or if you have any questions or concerns, please feel free to contact Misti Knight at misti.knight@tccd.edu. In particular, if you would like a summary of the results, please let us know by providing your email address or alternate contact information.

Sincerely,

Misti K. Knight MS, LAT

Kimberly Miloch, Ph.D.

APPENDIX E

Consent to Participate

TEXAS WOMAN'S UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Title: EXAMINATION OF BURNOUT IN NCAA ATHLETIC TRAINING USING THE ATHLETIC TRAINING BURNOUT INVENTORY

Investigator: Misti Knight ..... misti.knight@tced.edu 940/230-5722
Advisor: Kimberly Miloch, PhD ..... kmiloch@twu.edu 940/898-2592

Explanation and Purpose of the Research

You are being asked to participate in a research study for Ms. Knight's dissertation at Texas Woman's University. The purpose of this research is to examine burnout in the athletic training profession. You have been asked to participate in this study because you are an athletic trainer, employed in an NCAA institution.

Description of Procedures

As a participant in this study you will be asked to spend ten minute of your time completing a survey online. You answers will be kept confidential and anonymity will be controlled by storing data in an online database. In order to be a participant in this study, you must be at least 18 years of age or older, a certified or licensed athletic trainer and currently employed by an NCAA institution.

Potential Risks

Risks should be minimal since data will be reported in aggregate form. Anonymity will be kept by collecting data with the online database psychdata.com.

Participation and Benefits

Your involvement in this study is completely voluntary and you may withdraw from the study at any time. If you are interested in receiving more information regarding the results of this study, or if you have any questions or concerns, please feel free to contact Misti Knight at misti.knight@tced.edu.

Questions Regarding the Study

You will be given a copy of this signed and dated consent form to keep. If you have any questions about the research study you should ask the researchers; their phone numbers are at the top of this form. If you have questions about your rights as a participant in this

research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

If you have read and understand the above statements, please click on the "Continue" button below to indicate you consent to participate in the study. The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.

APPENDIX F

Survey Use Permission

E-mail permission from author of The Athletic Training Burnout Inventory:

From: Harris, Laura [mailto:Laura.Harris@osumc.edu]
Sent: Tuesday, June 22, 2010 11:23 AM
To: KNIGHT, MISTI
Cc: Dan Clapper (danclapper@hotmail.com); Daniel C. Clapper
Subject: RE: ATBI

Hi Misti,

I no longer have an electronic copy. I have a hard copy, and that's it. I'm not sure if Dan has an electronic copy or not. You can try his email addresses that I have included on the "CC".

If he doesn't have an electronic copy, please let me know so that I can US mail you a hard copy.

Laura

Laura L. Harris, PhD, AT
Clinical Associate Professor
Director of Clinical Edcuation
Athletic Training Education Program
The Ohio State University
228-A Atwell Hall
453 West 10th Avenue
Columbus, OH 43210
614-292-4487 (office)
614-419-0148 (cell)
harris.670@osu.edu

-----Original Message-----
From: KNIGHT, MISTI [mailto:MISTI.KNIGHT@tccd.edu]
Sent: Tuesday, June 22, 2010 12:15 PM
To: Harris, Laura
Cc: Kimberly Miloch
Subject: Re: ATBI

Dr. Harris,
Thank you so much for your help. If I could ask where I might obtain a copy of the ATBI to use for my research. This information would be very helpful.

Thank you,

On Jun 22, 2010, at 11:07 AM, "Harris, Laura" <Laura.Harris@osumc.edu> wrote:

> Hi Misti,

>
> I have no issues with you using the ATBI, nor you making the changes
> you listed.
>
> Good luck with your research.
>
> Laura
>
> Laura L. Harris, PhD, AT
> Clinical Associate Professor
> Director of Clinical Edcuation
> Athletic Training Education Program
> The Ohio State University
> 228-A Atwell Hall
> 453 West 10th Avenue
> Columbus, OH 43210
> 614-292-4487 (office)
> 614-419-0148 (cell)
> harris.670@osu.edu
>
> -----Original Message-----
> From: KNIGHT, MISTI [mailto:MISTI.KNIGHT@teed.edu]
> Sent: Monday, June 21, 2010 6:35 PM
> To: harris.670@osu.edu
> Subject: ATBI
>
> Dr. Harris,
> Hello, my name is Misti Knight and I am a doctoral student in sport
> management at Texas Woman's University in Denton, TX and I am a
> licensed athletic trainer in the state of Texas. I have been
> studying burnout in our profession for several years and have looked
> intensely at all of the research that has been done in the area. I
> am very interested in this line of research and have been
> particularly interested in you and Mr. Clapper's study using the
> Athletic Training Burnout Inventory. I will be starting my
> dissertation within the next year and I am planning on assessing
> burnout in athletic trainers in the U.S. from div II, II and III.
> Due to the reliability of your instrument I would like to ask your
> permission to use the Athletic Training Burnout Inventory in some of
> my current class work and use it as an instrument to assess burnout
> in my dissertation. With your permission I would to edit the ranges
> of age, years of experience, and years at current position and
> return them to open-ended responses. Additionally, I would like to
> add to the body of research already present in this area by
> evaluating burnout across other collegiate settings.
> Thank you so much for your time and I hope to hear from you soon.
>
>
> Sincerely,
> Misti K. Knight M.S., L.A.T.

> Instructor-Health and Physical Education
>
> Tarrant County College-NW
> Office:WHPE 1121
> Phone:(817)515-7077
> Email: Misti.Knight@tccd.edu
>
> Texas Womans University
> Doctoral Student
> Sport Management
>