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## The Evidence of Burnout Among Graduate Assistant Athletic Trainers

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THE EVIDENCE OF BURNOUT AMONG  
GRADUATE ASSISTANT ATHLETIC TRAINERS

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A Major Project

Submitted to the Graduate College of Bowling Green  
State University in partial fulfillment  
of the requirements for the degree of

MASTER OF EDUCATION

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## **Chapter One**

### **Introduction**

Athletic trainers, similar to other allied healthcare professionals, spend their entire career helping others. In addition to preventing injuries, providing first aid and injury management, evaluating injuries, and designing and implementing rehabilitation programs, athletic trainers assume responsibility for overseeing the total healthcare of athletes. This often goes above and beyond treating physical injuries, as athletic trainers are knowledgeable in managing the mental and emotional health of athletes in addition to typical job responsibilities. The level of involvement in their athletes' lives can be draining, and the high level of emotional involvement coupled with other high stress job characteristics has the potential to lead to burnout (Maslach, 2003). The large amount of hours worked, high stress environment of the workplace, and additional personal and extrinsic factors have led to findings that as many as 40% of athletic trainers are burned out (Campbell et al, 1985).

Burnout is often the result of prolonged exposure to stress (Dick & Wagner, 2001). The phenomenon has been defined as a reaction to chronic stress that involves negative interactions between environmental and personal characteristics (Perlman & Hartman, 1982). It is a chronic condition that develops when a person is working too hard for too long in high-pressure situations. Burnout often affects human service occupations, and is thought to be an imbalance between resources and demands that cause stress (Maslach & Jackson, 1985). Burnout manifests in both psychological and physical symptoms including anxiety, tension, fatigue, insomnia, exhaustion, and depression (Cherniss, 1992). Burnout research has been grouped into three major

characteristics: emotional exhaustion, depersonalization, and a lack of personal accomplishment (Mazerolle et al, 2012).

Emotional exhaustion includes feelings of being overextended and exhausted by one's job, depersonalization describes impersonal responses toward one's patients, and lack of personal accomplishment involves a lack of feelings of competence and achievements in the workplace (Maslach & Jackson, 1996).

Due to the frequency of occurrence, researchers have heavily studied the construct of burnout among healthcare professionals. Burnout not only affects the individual, but also affects the workplace and interactions between the healthcare professional and patients. Burned out health care and human service providers report feeling drained and unable to give anymore. They then cope by decreasing interaction with patients, and ultimately develop negative attitudes towards both the workplace and the patients (Balogun et al, 2002). The effects of burnout on healthcare professionals, including athletic trainers, can negatively affect the quality of care given to patients as well the advancement of the profession.

Due to the unique nature and requirements of their jobs, athletic trainers may be particularly at risk to become burned out. Many newly certified athletic trainers begin their careers with a high level of interest, but begin to feel pressure, frustration, and exhaustion as they are swamped with the demands of the job (Gieck et al, 1982). Despite previous research that suggests that younger athletic trainers are more likely to become burned out (Campbell et al, 1985), there is limited research on athletic trainers who are in the early years of their career. In particular, graduate assistant athletic trainers are a unique group as they are serving a dual role as both a certified athletic trainer and graduate student. Graduate assistant athletic trainers often take on a full stressful workload of an athletic trainer, typically with sole responsibility for teams, while

having little to no previous unsupervised experience. Simultaneously, graduate assistant athletic trainers take on a full load of graduate classes. In addition to classes, many graduate student athletic trainers have additional teaching and research responsibilities. Furthermore, newly certified athletic trainers are still learning to manage professional responsibilities along with personal obligations (Mazerolle, 2012).

Despite the increasing percentage of graduate assistant athletic trainers in the profession, the evidence of burnout and causes of those numbers have not been heavily studied. Graduate assistant athletic trainers work clinically in a variety of settings, with the secondary school and collegiate settings being the most common. Of those, burnout research has focused on graduate assistants in the collegiate setting. In the secondary school setting, which makes 25% of the total athletic training work setting (NATA, 2014), graduate assistant athletic trainers often have limited resources and social support while facing high stress demands. This creates a unique set of challenges for inexperienced athletic trainers while also setting them up for previously defined causes of burnout. Due to the high attrition rate in athletic training, more research is needed to focus on causes of burnout unique to graduate assistant athletic trainers, particularly in the secondary school setting, in order to preserve the future of the growing profession.

### **1.1 Statement of the Problem**

Although burnout has been studied extensively in the field of athletic training, there is limited literature regarding burnout in graduate assistant athletic trainers, and no literature focusing on burnout in graduate assistant athletic trainers working in the secondary school setting. The prevalence of burnout and factors causing those numbers are likely to vary between graduate assistant and experienced athletic trainers, and among graduate assistants in different clinical settings. It is important to identify the prevalence and potential causes of burnout unique to

different athletic training populations in order to prevent high rates of attrition in the future of the profession.

## **1.2 Statement of the Purpose**

The purposes of the study were:

1. To determine the prevalence of burnout among graduate assistant athletic working in the secondary school setting.
2. To identify which personal and professional variables are most correlated with those percentages.
3. To determine the differences of these results with those of graduate assistant athletic trainers working in the Division I collegiate setting.

### ***1.2.1 Specific Aim***

To identify the prevalence of burnout among graduate assistant athletic trainers working in the secondary school setting and variables that are causing burnout within that population.

## **1.3 Research Hypotheses**

- H1: This study will find that graduate assistant athletic trainers working in the secondary school setting are becoming burned out.
- H2: Inexperience and graduate school coursework will be the biggest factors linked to burnout.
- H3: Inexperience will be the biggest factor, being that inexperience in the fast paced environment of athletic training is likely to cause additional stress that a new athletic trainer may not know how to handle and that is not felt by an established athletic trainer.
- H4: When compared to graduate assistants working in the Division I collegiate setting, those in the secondary school setting will have less burnout.

#### **1.4 Limitations in Research**

Like any research investigation, this study will not be completed without limitations. The main limitation in burnout research is that there is no way to truly know whether or not the subjects are actually burned out. The self-report nature of the studies causes high variability in how questions are answered and also causes limited reliability. Burned out athletic trainers are less likely to respond to email surveys than those satisfied with their career. In addition, athletic trainers may answer survey questions while going through temporary frustration and stress that accompanies the occupation, which may skew where they would normally land on burnout measurements. There is no way to differentiate between daily frustration and true burnout through anonymous survey responses. Finally, the survey will be sent out towards the end of the school year, which is often a high stress time for graduate students.

#### **1.5 Significance of the Study**

More research is needed that focuses on younger athletic trainers and unique factors that impact burnout and leaving the profession early in their careers. The high attrition rate in athletic training is an issue and researching this may help the future of the profession and it continues to grow and evolve. The growth of athletic training as a profession is causing a fast expansion of athletic training jobs in the healthcare and corporate communities. Because these young professionals make up an increasing percentage of athletic training professionals and future leaders, burnout can influence retention within the profession. Therefore, newly certified athletic trainers such as graduate assistants should be included in more research efforts to gain a more accurate representation of both current and potential burnout in the athletic training occupation (Mazerolle, 2012).

## **Chapter Two**

### **Review of the Literature**

#### **2.1 Burnout**

Professional burnout was first conceptualized by Herbert Freudenberger in 1974. At that time, the term “burnout” was used to describe substance abusers that no longer cared about anything or anyone except for their drug of choice, as cited in Lambie, 2006. Freudenberger, a psychoanalyst, noticed that in his own job he had begun to feel fatigued and frustrated. He refocused “burnout” as a term to name a process that he was not only experiencing personally but also witnessed in several other professionals around him. Freudenberger (1974) suggested that “burning out” was most often caused from the leaders of an organization, and that as employees were disappointed by those in higher positions than them their disappointment eventually affected their work. Freudenberger stated that the experience of burning out manifests differently in people, ranging from headaches and exhaustion to fatigue and gastrointestinal problems. Other researchers have noted additional symptoms such as irritability, anger, tension, nervous tics, hyperventilation, heart palpitations, backaches, heavy perspiration, depersonalization, increased use of alcohol and drugs, social isolation, decreased self-esteem, and emotional exhaustion (Farber, 1983; Kahill, 1988; Schaufeli & Enzmann, 1998). Schaufeli and Enzmann (1998) described the symptoms of burnout by dividing them into five groups. These groups were identified as (1) Affective Symptoms, (2) Cognitive Symptoms, (3) Physical Symptoms, (4) Behavioral Symptoms, and (5) Motivational Symptoms. As individuals experience symptoms in one group, they can begin to feel trapped in their position, which can intensify problems and lead them to experience symptoms in other groups. Freeborn (1998)

states that healthcare professionals who are experiencing these symptoms of burnout may adopt an indifferent attitude toward their work which can negatively impact the quality of care given to patients.

## **2.2 Burnout as a Process**

Rosenberg and Pace (2006) described burnout as a process that evolves over time rather than a series of isolated events. Freudenberger and North (2006) divided the process into 12 distinct phases: (1) A compulsion to prove oneself, (2) Working harder, (3) Neglecting their needs, (4) Displacement of conflicts, (5) Revision of values, (6) Denial of emerging problems, (7) Withdraw, (8) Obvious behavioral changes, (9) Depersonalization, (10) Inner emptiness, (11) Depression, (12) Burnout. Burnout has been described as a complex process consisting of gradual changes that happen slowly overtime (Schaufeli & Dierendonck, 1993; Cherniss, 1980).

Veninga and Spradley (1981) described burnout as a five step process with distinct stages:

1. Honeymoon phase: the employee has just started a new job and is satisfied in their position.
2. Job disappointment: The employee begins to experience energy depletion and a lack of fulfillment but may not be aware of burnout symptoms.
3. Job disillusionment: Burnout symptoms become chronic and begin to interfere with the person's functioning at work and at home.
4. Crisis: The worker becomes obsessed with the problem and burnout dominates his or her life.
5. Hitting the wall: It is impossible to function on the job and the person's life deteriorates in significant ways. The employee leaves the job and possibly the profession.

Although these descriptions of burnout as a process are commonly referenced and accepted in burnout literature, the most popular view of burnout is from Maslach and Jackson (1981). They defined burnout as a syndrome of emotional exhaustion and cynicism that occurs commonly among individuals who do “people-work” and state that it occurs in three stages: (1) individuals begin to exhibit feelings of emotional exhaustion and feel they are no longer to give of themselves at a high level as emotional resources are depleted. (2) Individuals start to develop negative attitudes about their patients, possibly blaming them for their own problems. (3) Individuals begin to evaluate themselves negatively, particularly with regard to their work and relationship with patients. At Stage 3, individuals often sense a lack of personal accomplishment and are dissatisfied with career successes (Maslach & Jackson, 1996).

### **2.3 Measuring Burnout**

Many different measurement tools have been used to quantify burnout. The Maslach Burnout Inventory (MBI) is used the most often, with 91% of all studies utilizing it as an instrument (Cox et al, 2005). The MBI was developed in 1981 and is considered to be the definitive measure of burnout. There are three versions of the MBI: the MBI-Human Services Survey (MBI-HSS), the MBI General Survey (MBI-GS), and the MBI-Educators Survey (MBI-ES) (Maslach & Jackson, 1996). The original form is the MBI-Human Services Survey, which is utilized by research focusing on human service occupations such as healthcare professions. It conceptualizes burnout as uncontrollable, negatively perceived events occurring over a period of time that lead to three negative psychological responses: depersonalization, emotional exhaustion, and a lack of personal accomplishment (Hendrix et al, 2000). Emotional exhaustion illustrates feelings of being emotionally overextended and exhausted by work. Depersonalization describes a loss of concern for coworkers and patients, and an impersonal response towards

them. Personal accomplishment is defined as the feelings of accomplishment and a sense of competence about one's job and a sense of self-appreciation for achieved successes. The MBI is based on a 7-point Likert scale, which assesses statements from "never" (0) to "everyday" (7). The inventory is scored by summing the items in each of the subscales independently (Hendrix et al, 2000).

Maslach and Jackson (1996) found the reliability coefficients for the MBI-HSS subscales to be .79 for depersonalization, .90 for emotional exhaustion, and .71 for personal accomplishment. Numerous other researchers have found that the MBI-HSS is both a reliable and valid way to assess burnout in human service professions (Hendrix et al, 2000; Naude & Rothmann, 2004; Richardsen & Martinussen, 2004).

#### **2.4 Burnout in Health Care Professions**

The majority of health care and human-service occupations are accompanied by high occupational stress levels, decreases in job satisfaction, signs and symptoms of burnout, and higher attrition rates (Reed, 2004). Many researchers have studied burnout in healthcare professionals, including physicians, physical therapists, and nurses. Several themes exist among these occupations including age, job and family demands, a lack of social support, and a decrease in the quality of health care.

Nurses and physical therapists age 18-30 scored significantly higher on the depersonalization subscale than other age groups. This may be due to being less personable resulting from fewer years of experience in the profession (Meltzer, 2004). For physicians, clinicians ages 37-47 years of age had higher burnout scores than physicians ages 30-36 and physicians older than 48 (Freeborn, 2001). Although literature states age as a common factor in

burnout, the number of years of experience or years in a particular position may be the contributing factor.

Job demand is a common predictor of burnout in physicians, physical therapists, and nurses. Physicians who feel their job demand is too high have significantly higher burnout scores than those who feel that their job demand is appropriate (Freeborn, 2001). In addition, there is a significant positive correlation between the number of hours worked per week and depersonalization core for both nurses and physical therapists (Meltzer, 2008). Family demands have been determined to be one of the strongest personal factors impacting burnout in nurses (Meltzer, 2004). Additionally, number of children was found to be a predictor of emotional exhaustion in physical therapists, which contributes to burnout (Balogun et al, 1999).

Lack of social support is a predicting factor of burnout across the board of health care professions. Social support strongly correlated to burnout rates in physicians. As social support increased, burnout decreased (Freeborn, 2001). Among nurses, poor support from supervisors, a lack of support from co-workers, and feelings of being in an unsupportive environment leads to higher rates of burnout. This is particularly evident in young nurses, who many argue do not get the support they need, and ultimately leads to higher turnover rates (Erickson, 2008). Literature agrees that as social support increases, burnout decreases.

Burnout among physicians and nurses lead to a decrease in quality of patient care. Literature suggests that burned-out physicians have difficulty relating to patients, and thus the quality of their care suffers. Nurses with high levels of emotional exhaustion show decreased productivity which compromises the care they provide to their patients (Freeborn, 2001).

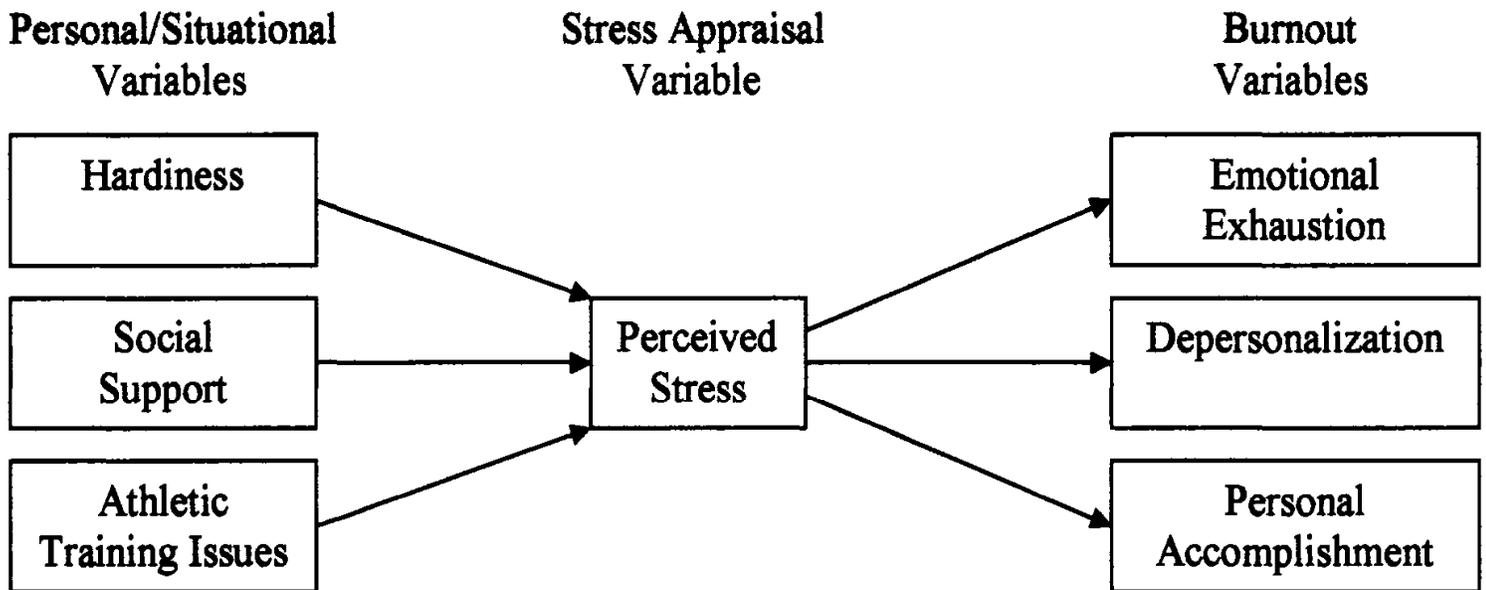
## **2.5 Burnout in Athletic Training**

Athletic trainers provide both health care and human services to the athletic and physically active population. Athletic trainers generally assume responsibility for overseeing the total health care of athletes. Athletic trainers are directly responsible for all phases of health care in an athletic environment including injury prevention, providing first aid and injury management, injury evaluation, and the design and implement of rehabilitation programs. In addition to the physical demands of athletes, athletic trainers also commonly deal with the mental aspect of athletic injury. Athletic trainers commonly oversee and assist with the treatment of athletes dealing with denial, depression, and other emotional and mental issues. As seen in other health care and human service occupations, athletic trainers are vulnerable to burnout throughout their careers. The high amount of hours worked, high stress environment of the workplace, and additional personal and extrinsic factors all may lead an athletic trainer to become burned out. Few researchers have aimed to pinpoint burnout risk factors and causes among athletic trainers in a variety of work settings. Although the profession of athletic training is still young in relation to other health care professions, burnout has long been an issue in the profession. In 1985, Campbell et al assessed stress and burnout with the Athletic Training Burnout Scale in athletic trainers who attended the National Athletic Trainers' Association national conference in 1984. They found that 40% of athletic trainers who completed the questionnaire fit the criteria to be considered burned out. Those who scored higher on the Athletic Training Burnout Scale were more likely to have two or more medical conditions such as fatigue, irritability, weight management problems, sleeplessness, depression, indigestion, and nervousness than those who scored low on the scale. In addition, Campbell et al (1985) concluded that male athletic trainers are more likely to be burned out than females, athletic

trainers that have children are less likely to be burned out, head athletic trainers are more likely to be burned out than assistant or associate athletic trainers, athletic trainers who work closely alongside another athletic trainer are more likely to be burned out, and that burned out athletic trainers tend to be younger.

Most commonly referenced in athletic training burnout research, Hendrix et al (2000) assessed these risk factors in certified athletic trainers practicing as clinicians. They reported that clinically practicing athletic trainers who scored lower in hardiness and social support, and higher on athletic training issues (such as high athlete-to-athletic trainer ratio, minimal financial support, and dual-role responsibilities) had higher perceived stress. Those with higher perceived stress experienced emotional exhaustion, depersonalization, and lower levels of personal accomplishment. Hendrix et al illustrated their findings with a model to represent factors that influence burnout in athletic trainers. (Hendrix, 2000).

**Figure 1. Factors that Influence Burnout in Athletic Trainers**



(Hendrix et al, 2000)

The number of hours per weeks spent on leisure activities has been found to be positively related to personal accomplishment (Kania et al, 2009). Athletic trainers who spend more hours per week on exercise, hobbies, and vacation experience greater levels of personal accomplishment than those who spend less time on leisure. As a result, research suggests that athletic trainers who find a better balance of work and leisure better prevent burnout and feel more accomplished within the workplace (Kania et al, 2009).

Research studies have been completed on athletic trainers working in various divisions of universities and high schools, faculty, and athletic training students. Despite previous conclusions that younger athletic trainers are at a higher risk to become burned out (Campbell et al, 1985), there is limited literature focused on burnout in newly certified athletic trainers. This group, including both graduate assistant athletic trainers and those who immediately join the full-time work force after certification, are unique as they are taking on the full stressful workload of an athletic trainer with little to no previous unsupervised experience. Graduate assistant athletic trainers take on a full clinical load in addition to graduate coursework and research. Furthermore, newly certified athletic trainers are learning to manage professional responsibilities along with personal obligations (Mazerolle, 2012).

Literature has offered specific lifestyle recommendations of exercise, proper diet, and getting a balance of work and leisure to prevent symptoms of burnout in experienced athletic trainers, but few authors have empirically investigated sources of stress and coping responses experienced by newly certified athletic trainers (Reed, 2004). Kania et al (2009) concluded that burnout often occurs in younger professionals about one year after an individual begins working at an institution. Burnout may occur more frequently in younger professionals because of a lack

of formal training and acknowledgement of workplace stressors during the educational process. This reveals a necessary improvement needed in the athletic training education system as well as a lack of stress management training throughout the educational process. Adding content that is related to stress management and burnout to athletic training education programs could assist young professionals in navigating the profession beyond graduation. Kania et al (2009) provides six suggestions to ease burnout symptoms in young professionals: (1) providing thorough training for newly hired athletic trainers, including stress management techniques; (2) limiting the hours per week that a person can work; (3) working as a team with other staff members rather than working individually; (4) providing time off to attend workshops and conferences; (5) increasing the number of staff to spread the work around; (6) encouraging regular exercise.

## **2.6 Burnout in Graduate Assistant Athletic Trainers**

As previously stated, burnout research in graduate assistant athletic trainers is lacking and needs to be further explored. Mazerolle, Monsma, Dixon, and Mensch (2012) conducted a cross-sectional study to examine burnout among graduate assistant athletic trainers at NCAA Division I institutions. They found that graduate assistants who traveled with athlete teams and those who had teaching assistant responsibilities reported the highest levels of stress due to time commitment. They also found that those who reported high levels of administrative responsibilities within their clinical sites had higher levels of stress than other graduate assistants. This study concluded that graduate assistant athletic trainers are at a high risk for burnout due to time necessary to complete their clinical and academic responsibilities (Mazerolle et al, 2012).

## **2.7 Risk Factors for Experiencing Burnout**

The allied health professions and other helping professions develop burnout more than any other occupation (Maslach & Jackson, 1981). The main purpose of the healthcare field is to serve and care for others, and professionals in the field invest large amounts of time and emotional resources into treating and working with their patients. When treatments do not work and patients do not get well, it can be demoralizing to the provider and make it difficult for the care provider to stay motivated (Maslach & Jackson, 1996).

Personality may also be responsible for why some individuals are more likely to experience burnout than others. Piedmont (1993) found that individuals who are anxious, depressed, or unable to deal with stressors were equivalent to individuals who experienced the highest levels of emotional exhaustion and depersonalization in terms of burnout risk.

Personality as a risk factor has been supported by Buhler and Land (2004), who found that neuroticism, extraversion, job-distance ability, and frustration to be strongly correlated with high scores. Additionally, low self-esteem, obsessive worry, passivity, and social anxiety all may place an individual at higher risk to become burned out (McCraine & Brandsma, 1988).

Individuals who enter a career as highly motivated may also be at a higher risk for burnout. Specifically referring to young athletic trainers, Gieck et al (1982) wrote that, “The athletic trainer begins his professional career with a high level of interest and enthusiasm. He is bursting with ideas and desires to implement them. The classic work pattern of dedication and commitment becomes over-dedication and over-commitment”. On the opposite end, Pines and Aronson (1983) found that individuals with low job expectations who do not care about their work do not usually experience burnout.

Age is also commonly regarded as a major risk factor for burnout. Those who are young and beginning their careers are more likely to experience disappointment and emotional exhaustion as a result to stressors of the workplace (Cox et al, 2005). This may be due to young professionals having not yet developed coping skills or strong social support networks which may lead them to feel overwhelmed and unable to deal with daily stressors (DeRobbio & Iwanicki, 1996).

## **2.8 Limitations in Research**

The main limitation in burnout research that there is no way to truly know whether or not the subjects are actually burned out. The self-report nature of the studies causes high variability in how questions are answered and also causes limited reliability. Burned out athletic trainers are less likely to go to the National Athletic Trainers' Association conference and are less likely to respond to email surveys. In addition, athletic trainers may answer survey questions while going through temporary frustration and stress that accompanies the occupation, which may skew where they would normally land on burnout measurements. There is no way to differentiate between daily frustration and true burnout through anonymous survey responses.

Regardless of limitations, more research is needed that focuses on younger athletic trainers and unique factors that impact burnout and leaving the profession early in their careers. The high retention rate in athletic training is an issue and researching this may help the future of the profession and it continues to grow and evolve. The growth of athletic training as a profession is causing a fast expansion of entry-level athletic training jobs in the health care and corporate communities. Because these young professionals make up an increasing percentage of athletic training professionals and future leaders, burnout can influence retention within the

profession. Therefore, newly certified athletic trainers should be included in more research efforts to gain a more accurate representation of both current and potential burnout in the athletic training occupation (Mazerolle, 2012).

## **Chapter Three**

### **Methodology**

#### **3.1 Research Design**

Study design: Non-experimental, exploratory and descriptive research design.

#### **3.2 Participants**

We will recruit graduate assistant athletic trainers, both male and female, who are working clinically in the secondary school or collegiate setting. Following approval by the Institutional Review Board at Bowling Green State University, participants will be recruited through the National Athletic Trainers' Association (NATA) survey request service. The NATA will send out an email to 500 student certified members who have indicated working clinically in the secondary school setting, and 500 student certified members who have indicated as working in the collegiate setting. The participants will be randomly selected from a variety of geographic locations.

#### **3.3 Instrumentation**

We will determine the evidence of burnout among graduate assistant athletic trainers through the Maslach Burnout Inventory-Human Service Survey (MBI-HSS) (Appendix A), and various factors that play into those findings using a demographic survey (Appendix B). These will be delivered electronically through an anonymous online survey questionnaire hosted by Survey Monkey. The survey will be done anonymously and does not include any identity-

revealing demographic questions. The survey will only be filled out by each participant one time, and after completion they have finished their involvement in the research study.

### **3.4 Procedures**

Surveys will be distributed by the NATA to participants who fit the requested criteria through a hyperlink via an introductory email. Upon clicking the hyperlink, participants will be taken to an informed consent page in which they will click “Next” to give consent to participate and begin the survey. The survey will consist of 15 demographic questions and 22 statements accompanied by a likert scale ranging from “never” to “every day”. It will take participants approximately 10 minutes to complete.

### **3.5 Data Analysis**

After scoring each individual MBI, mean scores will be calculated for the categories of emotional exhaustion, depersonalization, and personal accomplishment. A T-Test will be performed to determine statistical significance in differences between secondary school graduate assistant athletic trainers and Division I graduate assistant athletic trainers. A Pearson-product correlation will be performed in order to assess any correlation between years of experience as a certified athletic trainer, clinical hours worked per week, hours per week spent on graduate coursework, and semester credits enrolled in with emotional exhaustion, depersonalization, and personal accomplishment. All statistical analyses will be completed using SigmaStat version 3.5, from Systat Software, Inc., San Jose California USA, [www.sigmaplot.com](http://www.sigmaplot.com).

## **Chapter Four**

### **Results**

#### **4.1 Overview**

The following research was done to examine burnout among graduate assistant athletic trainers working in the secondary school and Division I settings. The following chapter will describe the results including demographic information of the sample, numerical findings, and other interests.

#### **4.2 Demographic Information**

Two hundred and forty participants completed the survey, resulting in a response rate of 24%. Sixty-seven did not fit the research criteria and as a result their data was not collected. Thirty-one surveys were eliminated because they were not completed. Therefore, the total number of participants was 142.

There were substantially more female participants ( $n=93$ , 65.49%) than male participants ( $n=49$ , 34.51%). The average age of participants was  $24.03\pm 1.78$  years, with a minimum age of 22 and a maximum age of 34. Participants had an average  $2.02\pm 1.26$  years of experience working as a certified athletic trainer. More division I GAATs ( $n=89$ , 62.26%) than secondary school GAATs ( $n=53$ , 37.32%) participated in the study.

The secondary GAATs group was enrolled in an average of  $10.60\pm 3.16$  semester credits and spent an average of  $12.49\pm 8.06$  hours per week on graduate coursework. The division I GAATs group was enrolled in an average of  $9.33\pm 2.8$  semester credits and spent an average of  $9.26\pm 6.06$  hours per week on graduate coursework. GAATs in the secondary setting worked fewer hours per week ( $26.13\pm 6.98$ ) on average than GAATs in the division I setting ( $37.08\pm 5.05$ ).

**Table 1. Background Information for study participants (n=142)**

Variables	Mean	Sd	SE	Range	n	%
Age	24.02	1.78	.15	22-34		
Gender						
Male					49	34.51
Female					93	65.49
Years of experience as an ATC	2.02	1.26	.11	1-9		
Setting						
Secondary					53	37.32
Division I					89	62.26
Clinical hrs/week	32.99	7.88	.66	10-40		
Hrs/week spent on graduate coursework	10.47	7.03	.59	2-40		
Semester credits	9.80	3.00	.25	3-19		

**Table 2. Mean comparisons of independent variables within participant groups (n=142)**

Variables	Secondary	Division I
Age (years)	24.08±2.24	23.99±1.45
ATC Experience (years)	2.09±1.71	1.98±0.89
Time spent per week at clinical assignment (hours)	26.13±6.98	37.08±5.05
Number of graduate credits currently enrolled in	10.60±3.16	9.33±2.8
Time spent per week on graduate coursework (hours)	12.49±8.06	9.26±6.06

### 4.3 Levels of Perceived Burnout

The score of the MBI-HSS translates into three categories of low, moderate, and high levels of for each subscale of burnout (Table 3). Overall, GAATs were identified as being in the moderate category for emotional exhaustion ( $M=24.81\pm 10.28$ ), depersonalization ( $M=8.29\pm 6.45$ ), and personal accomplishment ( $M=36.94\pm 6.43$ ).

**Table 3. Category of burnout by score on the MBI-HSS**

	<b>Low</b>	<b>Moderate</b>	<b>High</b>
<b>Emotional Exhaustion</b>	0-16	17-26	27+
<b>Depersonalization</b>	0-6	7-12	13+
<b>Personal Accomplishment</b>	0-31	32-38	39+

(Maslach & Jackson, 1996)

Graduate assistant athletic trainers in the division I collegiate setting trended higher in all three categories and were statistically significantly higher in EE ( $t(140) = 2.97, p < .01$ ) and DP ( $t(140)=2.82, p < .01$ ). Differences between groups on scores of the MBI-HSS can be seen in Table 4.

**Table 4. Differences in MBI-HSS scores between secondary school and division I clinical setting graduate assistant athletic trainers**

<b>Category</b>	<b>N</b>	<b>Mean</b>	<b>Sd</b>	<b>SEM</b>	<b>t-value</b>	<b>p-value*</b>	<b>d.f.</b>
<b>Emotional Exhaustion</b>	Secondary	53	21.59	8.25	1.13	-2.97	<.01
	Division I	89	26.73	10.91	1.16		
<b>Depersonalization</b>	Secondary	53	6.36	4.79	.66	-2.82	<.01
	Division I	89	9.44	7.03	.75		
<b>Personal Accomplishment</b>	Secondary	53	36.55	6.34	.87	-.56	.57
	Division I	89	37.18	6.50	.69		

\*Difference is significant at the 0.05 level

#### 4.4 Correlations

Pearson product moment correlation (r) indicates that a positive correlation exists between the number of clinical hours worked per week and emotional exhaustion in division I graduate assistant athletic trainers ( $r=.39$ ), see Tables 5 and 6. This correlation indicates that higher amounts of hours worked can lead to higher amounts of burnout within graduate assistant athletic trainers. Graduate assistant athletic trainers in the secondary school setting may experience less emotional exhaustion due to a fewer amount of clinical hours worked per week.

**Table 5. Possible factors contributing the burnout in division I clinical setting graduate assistant athletic trainers and Pearson's Product Moment Correlation**

	<b>EE</b>	<b>DP</b>	<b>PA</b>
<b>Clinical hours/week</b>			
<b>r</b>	.39	.29	-.13
<b>P-value*</b>	<.01	<.01	.23
<b>Number of samples</b>	89	89	89
<b>Hours spent on graduate courses/week</b>			
<b>r</b>	-.05	-.17	.10
<b>P-value*</b>	.63	.12	.33
<b>Number of samples</b>	89	89	89
<b>Years of experience</b>			
<b>r</b>	-.06	.04	-.04
<b>P-value*</b>	.61	.73	.69
<b>Number of samples</b>	89	89	89
<b>Semester credits</b>			
<b>r</b>	-.16	-.02	.01
<b>P-value*</b>	.13	.87	.90
<b>Number of samples</b>	89	89	89

\*Correlation is significant at the 0.05 level

**Table 6. Possible factors contributing the burnout in secondary school setting graduate assistant athletic trainers and Pearson's Product Moment Correlation**

	<b>EE</b>	<b>DP</b>	<b>PA</b>
<b>Clinical hours/week</b>			
<b>r</b>	.25	-.07	.13
<b>P-value*</b>	.06	.62	.35
<b>Number of samples</b>	53	53	53
<b>Hours spent on graduate courses/week</b>			
<b>r</b>	.03	.03	.10
<b>P-value*</b>	.85	.83	.50
<b>Number of samples</b>	53	53	53
<b>Years of experience</b>			
<b>r</b>	-.01	-.20	.10
<b>P-value*</b>	.93	.15	.46
<b>Number of samples</b>	53	53	53
<b>Semester credits</b>			
<b>r</b>	.16	-.09	.25
<b>P-value*</b>	.26	.48	.06
<b>Number of samples</b>	53	53	53

\*Correlation is significant at the 0.05 level

#### 4.5 Conclusions

The major finding of this study was that despite having only worked in the profession for a short period of time, graduate assistant athletic trainers experience moderate levels of burnout across all three subscales in both the secondary school and division I settings. This is similar to the findings of a previous study, in which Hendrix et al. (2000) found division I university certified athletic trainers to experience moderate levels of burnout in all three subscales.

This study found the strongest correlating variable of burnout to be the number of clinical hours worked per week. The number of hours worked per week was positively correlated with the amount of emotional exhaustion, which may increase perceived burnout. The difference in clinical hours worked per week between secondary school and division I graduate assistant athletic trainers may account for the higher trend in emotional exhaustion scores by those in the division I setting.

## **Chapter Five**

### **Summary and Conclusions**

#### **5.1 Summary**

People working in the helping professions including nurses, doctors, and athletic trainers experience burnout across all three subscales of burnout, which include emotional exhaustion, depersonalization, and personal accomplishment (Campbell et al., 1985; Hendrix et al., 2000).

This may be due to people in the helping professionals having constant interaction with individuals on a daily basis (Maslach & Jackson, 1981). The purposes of this study were:

1. To determine the prevalence of burnout among graduate assistant athletic working in the secondary school setting.
2. To identify which variables are most correlated with those percentages.
3. To determine the differences of these results with those of graduate assistant athletic trainers working in the Division I collegiate setting.

Multiple factors were assessed to determine relations in levels of burnout including years of experience as a certified athletic trainer, clinical hours worked per week, hours spent working on graduate coursework per week, and the number of credits enrolled in during the current semester.

One hundred forty-two participants completed the online survey containing demographic information and the Maslach Burnout Inventory-Human Service Survey (MBI-HSS).

A thorough literature review showed that there is limited research regarding burnout in graduate assistant athletic trainers, and none focusing on graduate assistant athletic trainers working clinically in the secondary school setting. Descriptive data and correlations were performed for the three subscales of burnout as measured by the MBI-HSS.

Results of data analyses revealed that both secondary school and division I graduate assistant athletic trainers experienced moderate levels of burnout across all three subscales including emotional exhaustion, depersonalization, and personal accomplishment. Those with clinical assignments in the division I setting trended higher in all three subscales, and were significantly higher in emotional exhaustion and depersonalization than secondary school graduate assistant athletic trainers. Graduate assistant athletic trainers in the division I setting experience higher levels of emotional exhaustion and depersonalization, but also have a higher sense of personal accomplishment which makes sense given the nature of the their clinical setting. Division I graduate assistant athletic trainers are more likely to see out injuries from start to finish and may be more likely to form close bonds with their teams and athletes. A Pearson-product correlation showed that the number of hours worked per week was positively correlated with the level of emotional exhaustion in graduate assistant athletic trainers.

There is a possibility that the truly “burned out” population of graduate assistant athletic trainers may have been under-represented in this study, and thus may have affected the results of this study. Graduate assistant athletic trainers experiencing the greatest levels of burnout may be unlikely to respond to survey questionnaires due to the stress and exhaustion they are under. This strong limitation in burnout research may have skewed results to be lower than reality.

## **5.2 Conclusions**

The following conclusions were made based upon the results of this study.

1. Despite having only worked in the profession a short period of time, graduate assistant athletic trainers experience moderate levels of burnout

2. Graduate assistant athletic trainers with assistantships in the division I collegiate setting reported higher levels of emotional exhaustion and depersonalization than those with assistantships in the secondary school setting.
3. The number of hours worked clinically per week is positively correlated with the level of emotional exhaustion among graduate assistant athletic trainers.

### **5.3 Recommendations for Future Research**

The following recommendations for future research were established based on the results of this study.

1. Examine the reliability of MBI-HSS for use in athletic training burnout research.
2. Examine the coping skills of graduate assistant athletic trainers in order to determine why some do not experience burnout.
3. Examine burnout levels in graduate assistant athletic trainers working in other clinical settings such as division II and III universities, clinics, and those working primarily as research assistants.
4. Examine differences in levels of perceived personal accomplishment between division I and secondary school graduate assistant athletic trainers.
5. Examine if there are changes in levels of burnout after implementing a burnout awareness segment into undergraduate athletic training education programs, specifically focusing on emotional exhaustion and the problems resulting from high emotional exhaustion rates.

6. Examine the differences in burnout across different seasons and differences between graduate assistant athletic trainers working in-season vs. out-of-season sports.

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## Appendix B: Demographic Questions

1. What is your age?
2. What is your gender?
  - Male
  - Female
3. How many years have you been working as a certified athletic trainer?
  - 0-1
  - 1-2
  - 2-3
  - 3-4
  - 4-5
  - 5 or more
4. What is/are your current clinical work settings?
  - Division I University
  - Division II or III University
  - Junior College
  - Secondary School
  - Clinic
  - Other (please specify)
5. Which sports do you provide coverage for at your clinical site?
  - Football
  - Track and Field
  - Cross Country
  - Soccer
  - Ice hockey
  - Field hockey
  - Lacrosse
  - Wrestling
  - Gymnastics
  - Basketball
  - Dance
  - Cheerleading
  - Baseball
  - Softball
  - Tennis
  - Volleyball
  - Swimming
  - Golf
  - Other (please specify)
6. How many total teams are you responsible for in a school year?
7. How many other certified athletic trainers do you work with at your clinical site?
  - 0
  - 1

- 2
  - 3 or more
8. How many student athletic trainers are you responsible for at one time?
- 0
  - 1
  - 2
  - 3 or more
9. How many total athletes are you responsible for?
- 0-50
  - 50-100
  - 100-200
  - 200-350
  - 350-500
  - 500 or more
10. On average, how many hours per week do you spend at your clinical site?
- 0-10
  - 10-20
  - 20-30
  - 30-40
  - 40 or more
11. How many semesters have you completed of graduate coursework?
12. How many credits are you currently enrolled in at your graduate institution?
13. How much money per year do you receive as a stipend as part of your graduate assistantship?
- Over \$25,000
  - \$20,000-25,000
  - \$15,000-\$20,000
  - \$10,000-\$15,000
  - \$5,000-\$10,000
  - \$0-\$5,000
  - I do not receive a stipend
14. Do you receive a tuition waiver?
- Yes, full
  - Yes, partial
  - No
15. On average, how many hours per week do you spend working on your academic course load?
- 0-5
  - 5-10
  - 10-20
  - 20-30
  - 30-40
  - 40 or more

## Appendix C: Bowling Green State University HSRB Approval



DATE: February 25, 2015

TO: Hannah Zelinsky, ATC

FROM: Bowling Green State University Human Subjects Review Board

PROJECT TITLE: [672021-1] The Evidence of Burnout Among Graduate Assistant Athletic Trainers Working in the Secondary School Setting

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: February 25, 2015

REVIEW CATEGORY: Exemption category # 2

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

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

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

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

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Human Subjects Review Board's records.

## **Appendix D: Informed Consent for Participants**

Hannah Zelinsky, BS, ATC, and Matthew Kutz, ATC, Ph.D., invite you to be a part of a master's project research study that looks at the evidence of burnout among graduate assistant athletic trainers working in the secondary school setting. We are asking you to participate because you are a certified student member of the National Athletic Training Association and have indicated that you work in the secondary school setting. You have received this email directly from the National Athletic Training Association.

The purpose of this study is to examine the evidence of burnout in graduate assistant athletic trainers who are working in the secondary school environment. While you may not receive any direct benefit for participating, it is important to understand the current evidence of burnout rates within certain populations of certified athletic trainers in order to preserve the future of the growing profession.

If you agree to be part of this research study, you will be asked to complete an online survey through Survey Monkey. The survey includes 15 demographic questions and 22 questions relating to the three major aspects of burnout: emotional exhaustion, depersonalization, and lack of personal accomplishment. This survey should take about 15 minutes to complete. After completing the survey, clicking "Done" at the bottom of the page will submit your answers. After finishing the survey nothing else will be asked of you.

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose to not answer an individual question or you may skip any section of the survey. Deciding to participate or not will not affect any relationship with Bowling Green State University, or your member standing with the National Athletic Training Association.

The data from this study will be stored on a password-protected computer. The only people who will have access to the data will be the principle investigator and research advisor. The researchers are not aware of the names or email addresses of study participants as this survey is being distributed to you directly from the National Athletic Training Association. Participation in this research study is entirely anonymous. Because some employers may use tracking software, we recommend that you (1) complete your survey on a personal computer, (2) do not leave the survey open if using a public computer or a computer others may have access to, (3) clear your browser cache and page history after completing the survey. We are not aware of any risks to you as a result of participating in this online survey study.

If you have any questions about this research study or your participation in the research, please contact Hannah Zelinsky, ATC at [hzelins@bgsu.edu](mailto:hzelins@bgsu.edu), or Matthew Kutz, ATC, Ph.D. at 419-372-6810 or [mkutz@bgsu.edu](mailto:mkutz@bgsu.edu). You may also contact the Chair, Human Subjects Review Board at 419-372-7716 or [hsrb@bgsu.edu](mailto:hsrb@bgsu.edu), if you have any questions about your rights as a participant in this research. Thank you for your time.

If you would still like to participate in this study, please select "Next" below to continue to the survey. If you would like to withdraw from participation you click the "X" in the upper corner of your browser to exit.

## Appendix E: NATA Survey Recruitment Email

Dear Fellow Certified Athletic Trainer:

I am a master's degree candidate at Bowling Green State University, requesting your help to complete part of my degree requirements. Please follow the link at the end of this letter to an online survey titled: Examining Burnout in Graduate Assistant Athletic Trainers.

**This student survey is not approved or endorsed by NATA. It is being sent to you because of NATA's commitment to athletic training education and research.**

The questionnaire consists of 15 demographic questions and 22 Likert Scale (0-Never to 6-Every day) questions, which will take about 15 minutes to complete.

One thousand randomly selected certified NATA members indicated at student certified and working at a secondary school setting with a listed email address are being asked to submit this questionnaire, but you have the right to choose not to participate. The Bowling Green State University Institutional Review Board has approved this study for the Protection of Human Subjects.

This is a completely anonymous questionnaire and upon submission, neither your name nor email address will be attached to your answers. Your information will be kept strictly confidential.

As a fellow certified athletic trainer, your knowledge and opinions regarding this topic makes your input invaluable. Please take a few minutes to fill out the anonymous questionnaire you will find by clicking on this link and submit it by April 8<sup>th</sup>, 2015

<https://www.surveymonkey.com/s/BurnoutSurveyBGSU>

Sincerely,

Hannah Zelinsky, ATC

Bowling Green State University

Bowling Green, OH 43403

[hzelins@bgsu.edu](mailto:hzelins@bgsu.edu)

***Participants for this survey were selected at random from the NATA membership database according to the selection criteria provided by the student doing the survey. This student survey is not approved or endorsed by NATA. It is being sent to you because of NATA's commitment to athletic training education and research.***