DETERMINING WHAT FACTORS CAUSE STRESS AND ANXIETY IN GRADUATE ASSISTANT ATHLETIC TRAINING STUDENTS

By

Christine Mayoros

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ABSTRACT

DETERMINING WHAT FACTORS CAUSE STRESS AND ANXIETY IN FIRST YEAR GRADUATE ASSISTANT ATHLETIC TRAINING STUDENTS

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Purpose: This study examined what factors cause the most stress and anxiety in first and second year graduate assistant athletic trainers.

Methods: A survey containing demographics, the Perceived Stress Scale, and an anxiety survey were distributed to 555 members of the National Athletic Trainers' Association in the "student-certified" category.

Results: Results found that "new environment" and "transitioning from athletic training student to certified athletic trainer" were the main causes of stress and anxiety to graduate assistant athletic trainers. No significant differences in levels of stress or anxiety were found between first and second year athletic trainers. Graduate assistant athletic trainers did not rate their graduate institution's orientation to the highest success level.

Conclusion: This study concluded that graduate assistant athletic trainers' highest levels of stress and anxiety were caused by new environment and transitioning from athletic training student to certified athletic trainer. Graduate institutions show some room for improvement with orientating graduate assistants to their new institution. Athletic training education programs (ATEP) can start this transitioning process late in undergraduate education by letting students complete duties in unsupervised, low risk, situations or graduate institutions can act as mentors and visit graduate assistant athletic trainers at their clinical sites in the beginning of their assistantship.

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INTRODUCTION

1.1 OVERVIEW OF THE PROBLEM

Stress is present in every occupational position, including the profession of athletic training. Athletic trainers are responsible for the immediate care for multiple athletes' or patients' health at any one given time. This massive amount of responsibility can increase the stress and anxiety that is bestowed upon an athletic trainer. However, graduate assistant athletic trainers not only have typical athletic training duties, but they also complete classroom curriculum at the same time. Typically, a graduate assistant athletic trainer is a newly certified athletic trainer by the Board of Certification (BOC) and is transitioning from athletic training student to certified athletic trainer. Stress management is a valuable tool that graduate assistant athletic trainers could use, but are rarely provided a class in their undergraduate education. This is why it is important to find what the stressors of graduate assistant athletic trainers are and to see if the curriculum or clinical undergraduate and graduate education can be adapted to help prevent or manage the stress and anxiety that graduate assistant athletic trainers experience.

The Commission on Accreditation of Athletic Training Education (CAATE) defines the standards and practices for all accredited Athletic Training Education Programs (CAATE, 2011). This includes both coursework that must be completed in the classroom and a clinical rotation that provides students with hands on experience. The BOC and National Athletic Trainers Association (NATA) Education Council provide educational coursework on the five domains of athletic training (CAATE, 2011). These domains are prevention; injury/illness prevention and

wellness protection, clinical evaluation and diagnosis; immediate and emergency care; treatment and rehabilitation; and organization and professional health and well-being responsibilities (Pretice, 2009). However, stress management is not covered in any one of these five domains. Clinical rotation provides hands on experience in a variety of situations including: illness, injury, psychological concerns, and administrative duties. However, CAATE standards prevent athletic training students from practicing any skills on their own, this leaves them to have no experience handling an injury solo until they are certified (CAATE, 2008). Athletic training students are also limited to the amount of clinical hours they can spend in the athletic training room, which then limits their exposure to injuries; therefore, leaving them less prepared for new situations once they are a certified athletic trainer working on their own.

In order for a graduate assistant athletic trainer to obtain a master's degree they must complete all required coursework for their institution. Often, there is an orientation for graduate assistant athletic trainers at their new institutions. Poor orientations can leave graduate students with many questions and uncertainties that can cause ambiguity and add to the stress that they are already experiencing from being in a new environment (Capel, 1986). Clinical sites that are assigned to graduate assistant athletic trainers are either on-site, with an institutions sports team, or off- site, typically at a nearby high school or clinic. In either situation these graduate assistant athletic trainers are learning to transition from student to certified athletic trainer while managing their new patients, coursework, and duties in an unfamiliar setting. These high pressure situations, with multiple variables, can put a graduate student's stress and anxiety load at an all-time high (Reed, 2004). Graduate assistant athletic trainers in high school settings usually have no other staff members to consult with or help with their duties. It can be easily seen that students who are not prepared for large amounts of stress and anxiety can quickly deteriorate.

Stress is a necessary body reaction, but when there is an overabundance it can be more harmful than good (McChesney & Peterson, 2005). An overload of occupational stress can lead to a condition called burnout. Burnout is composed of high levels of emotional exhaustion, depersonalization, and low levels of personal accomplishment (Mashlash, Jackson, & Leiter, 1996). Burn out can eventually lead to an individual leaving their occupation. Anxiety is a condition that if it is experienced constantly, and at high levels, can lead to more complicated disorders such as depression and social anxiety disorders (ADAA,2010). Constant stress on workers at their jobs can lead to anxiety disorders such as depression (Delange, et al., 2009). These disorders can affect an individual's ability to perform at their jobs.

1.2 SIGNIFICANCE OF THE PROBLEM

Failing to provide athletic training students (ATSs) with all the tools they need to succeed is setting them up for failure in their future professional careers. Athletic training students should be given the opportunity to perform their skills unsupervised. Letting athletic training students be unsupervised in low risk situations can ease the transition to certified athletic trainer. Current CAATE standards state that students must be under direct supervision by an approved clinical instructor or a clinical instructor (CAATE, 2008). However, it is important that unprepared students are not left unsupervised in case of emergency situations.

Athletic training students are also limited by CAATE standards as to how many hours they can spend in the athletic training room depending on state regulations (CAATE, 2008). Athletic training students are not a work force that should be abused but ATSs need the maximum amount of exposure to athletic training situations such as preventing and managing injuries and illness. Too often the majority of their time is spent doing mindless jobs such as

filling water and ice. CAATE also requires that athletic training education program's minimum time commitment be for only two years (CAATE, 2008). In two years the average student will only have three to four sporting or clinic assignments. This is not optimal if students are on full year assignments for sports such as swimming or tennis that typically have a low injury rate. When an athletic training student is exposed to a situation he or she will be more at ease when controlling a similar situation in the future. This is why it is so important to increase the exposure that athletic training students have to provide for a greater learning opportunity.

Currently, there is no education curriculum for athletic training students that teach stress management. Everyone experiences stress, and when you are responsible for the care of other people, it can be easy for an athletic trainer to become overly stressed if they do not know how to manage their stress and anxiety. Previous research recommends teaching stress management techniques to athletic training students (Stilger, Etzel, & Lantz, 2001). The consequences of not protecting one's self from stress and anxiety overload include low life satisfaction, health concerns, and job burnout (Hendrix, Acevedo, & Hebert, 2000). If more and more certified athletic trainers are experiencing the symptoms above because of a lack of knowledge about stress management they may be tempted to leave the occupation.

New graduate assistant athletic trainers are not only newly certified, but also need to learn the policies and procedures at their graduate institution. Learning new procedures is a part of the duties of a graduate assistant athletic trainer. Such duties can be responsible for stress on athletic trainers (Reed, 2004). Graduate assistants also must cope with being in a new city or town and with little to no social support, which has been proven to be a major factor for stress management (Reed, 2004). It is easy to see how layer after layer, stress can build up on a

graduate assistant athletic trainer who does not have the proper training or tools to manage their stress.

1.3 PURPOSE OF THE STUDY

The purpose of this study was to explore factors related to stress and anxiety of graduate athletic training students. This study investigated whether these factors are a result of undergraduate athletic training education program, a result of a lack of preparation on the graduate institutions part, and/or just a part of the athletic training occupation. Lastly, demographic characteristics will be compared to see differences between NCAA divisions, on or off-site graduate assignments, and if athletic training students had received formal education on stress management.

1.4 HYPOTHESES

The study examined the following hypotheses:

H1: First year graduate assistant athletic trainers will experience higher levels of stress compared to second year graduate assistant athletic trainers as measured by the Perceived Stress Scale.

H2: First year graduate assistant athletic trainers will experience higher levels of anxiety compared to second year graduate assistant athletic trainers.

H3: First year graduate assistant athletic trainers are not satisfied with the orientation given to them prior to graduate school compared to second year graduate assistant athletic trainers.

H4: Graduate assistant athletic trainers in an off-site high school setting will experience higher levels of anxiety than those in an on-site setting.

H5: Graduate assistant athletic trainers in an off-site high school will experience higher levels of stress than those in an on-site setting.

H6: Graduate assistant athletic trainers who attended an NCAA Division II, III, or NAIA undergraduate institution will experience more stress than those students who attended an NCAA Division I undergraduate institution.

1.5 RESEARCH QUESTIONS

RQ1: Will the majority of graduate assistant athletic trainers state that they do not have any formal education on stress management or stress management techniques as an undergraduate athletic training student?

RQ2: Will graduate assistant athletic trainers show interest in the addition of stress management in their undergraduate athletic training education program?

RQ3: Will the factors that cause stress and anxiety in graduate assistant athletic trainers include: poor orientation by graduate institution, transitioning from student to certified athletic trainer, coursework load, lack of social support, encountering new athletic injuries, patients/athletes, lack of support from staff members, new environment, and lack of preparation by undergraduate institution for emergency situations?

1.6 OPERATIONAL DEFINATIONS OF TERMS

Anxiety- a psychic condition of heightened sensitivity to some perceived threat, risk, peril, or danger (Hunt, 1999).

Board of Certification (BOC)- Established in 1989 to provided certification for entry-level athletic trainers. The only accredited certification program for athletic trainers in the United States of America (BOC, 2008).

Certified Athletic Trainer (ATC)- A healthcare professional specializing in the prevention, care, and rehabilitation of injuries and illnesses in physically active populations.

Commission on Accreditation of Athletic Training Education (CAATE)- The certifying body for the entry-level athletic training education programs.

Direct Supervision- The physical presence of an Approved Clinical Instructor (ACI) or Clinical Instructor (CI).

Hardiness- Personality construct that reflects the tendency to believe in one's ability to influence the course of events and to act as if one has power in the face of various life circumstances, facing life with an eager curiosity, a sense of purpose, and a willingness to commit oneself to relationships, and challenge believing that change rather than stability in life is the norm and that changes are interesting, positive, and the stimulus for growth (Hendrix, Acevedo, & Hebert, 2000).

Graduate Assistant Athletic Trainer- Usually an ATC who concurrently obtains his or her master's degree in exchange for clinical, teaching, or research responsibilities.

National Athletic Trainers' Association- The professional organization for certified athletic trainers and athletic training students.

Occupational Setting- The location where participants provided clinical services. Defined in this study as either off-site or on-site.

Off- Site Setting- Clinical services provided to a different institution than in which the participants were enrolled. This setting included middle school, high school, private school (K-12), junior or community college, clinic, hospital or another college or university different from where the participants were enrolled.

On-Site Setting- Clinical services provided at the same institution in which the participants were enrolled. This setting included varsity, club, or intramural athletics.

Stress- An acute or chronic physical and emotional response to an imbalance between demands and resources available to accommodate the demands (Cohen, Kamarck, & Mermelstein, 1983).

CHAPTER 2

REVIEW OF LITERATURE

2.1 HISTORY AND EVALUATION OF ATHLETIC TRAINING EDUCATION AND CURRICULUM

Over the past 50 years, athletic training education and curriculum has gone through dramatic changes. The restructuring of educational practices and guidelines in both the classroom and clinical settings, eliminating the internship route to certification in order to increase quality control over entry-level education, adding new clinical proficiencies to reflect the diverse work settings and role delineation of athletic trainers, and the implementation of a clinical-instructor training program are just some of these modifications that have helped advanced the education of young athletic trainers (Geisler, 2003).

The first athletic training curriculum approved by the NATA in 1959 was comprised primarily of coursework that already existed at four-year colleges and universities. This curriculum was similar to a physical education and health degree with the exception of an athletic training class and laboratory. In 1969, the NATA developed the Professional Education Committee (PEC) to evaluate and recommend recognition of undergraduate education programs. Over the next two decades, the PEC improved coursework to specific skills for athletic trainers, developed a skills competency checklist, and formalized a list of learning outcomes for athletic training students (Craig, 2003; Delforge & Behnke, 1999).

Throughout the 1980s, the NATA approved and implemented a resolution that called for educational programs to offer a major field of study in athletic training, providing an academic major for athletic training students for the first time in the history of the profession. At this time, there were two routes recognized to certification by the NATA; graduation from an athletic

training major from a college or university, or completion of an internship in athletic training. In 1989, the NATA recognized the Board of Certification (BOC) Inc. as an independent entity to provide a certification program for entry-level athletic trainers and recertification standards for ATCs. The certification program was designed to establish standards for entry into the athletic training profession and remains the only accredited certifying body for athletic trainers in the United States (Board of Certification, 2008). At this time, both athletic training curriculum and internship allowed individuals to sit for the BOC Examination, the certifying exam for the profession of athletic training.

The Joint Review Committee on Educational Programs in Athletic Training (JRC-AT) was developed in October of 1991 under the Commission on Accreditation of Allied Health Profession Programs (CAAHEP) and charged with the review and accreditation of educational programs in athletic training. As athletic training curriculum and education advanced, the internship route to certification was eventually eliminated. As of January 2004, ATSs must go through a four-year accredited institution to be eligible to sit for the BOC Exam (Craig, 2003). Effective June 30, 2006, the JRC-AT became independent of CAAHEP and became the Commission on Accreditation of Athletic Training Education (CAATE), the new certifying body for entry-level athletic training education programs (ATEP). CAATE defines the standards and practices for all accredited ATEPs in the nation, currently overseeing 343 undergraduate and 24 entry-level graduate programs (CAATE, 2011). CAATE's purpose is to maintain and assure that the quality and content of all accredited ATEPs are consistent with the standards established (CAATE ,2011).

CAATE standards are divided into three sections. Section I contains information on General Requirements for Accreditation. This section includes the function and qualification

guidelines on personnel such as program directors, instructional faculty and staff, and clinical faculty and staff (CAATE, 2008). It also includes information on sponsorship of a program, physical, financial, instructional, therapeutic, rehabilitative, and emergency care resources, operational policies and fair practices, health and safety, and student outcomes. Information on curriculum and instruction and clinical education are also included in Section I.

Section II of the CAATE standards focus on Administering and Maintaining Accreditation. The focus here is on the application to become an accredited program and the process a potential program can expect. Guidelines for maintaining accreditation and annual reporting fall into Section II along with administrative actions. CAATE may interrogate a program if not in compliance with the Standards. Section III is the Athletic Training Standards Glossary. This section provides definitions for terms used in athletic training education as well as abbreviations for commonly used terms (CAATE, 2008). If an institution's ATEP does not meet the CAATE standards, the students in the ATEP cannot sit for the BOC examination to gain athletic training certification (CAATE, 2011.).

2.1.1 CAATE Standards

There are six CAATE standards that are specifically geared toward the clinical rotation of athletic training undergraduate students. Three of these standards are believed to play a role in increasing the amount of stress of a first year graduate student. The first standard states that "J1. The athletic training curriculum must include provision for clinical experiences under the direct supervision of a qualified ACI or CI (see Section B) in an appropriate clinical setting" (CAATE, 2008). This means that the ATS must be under constant supervision by an approved clinical instructor (ACI) or a clinical instructor (CI). Under this standard, an ATS would not be allowed

to travel alone with a sporting assignment or even be allowed to attend a practice without an ACI or CI.

The second standard in question is "J3. Clinical experiences must be contained in individual courses that are completed over a minimum of two academic years" (CAATE, 2008). One sublet of this standard states: "J3.51 The length of clinical experiences should be consistent with other comparable academic programs requiring a clinical or supervised practice component. Such policies must be consistent with federal or state student work-study guidelines as applicable to the campus setting" (CAATE, 2008). The minimum of two years of clinical experience with limited hours per week creates a small time frame from which an ATSs needs to see a vast variety of injuries and situations.

As part of the ATEP, athletic training students must rotate through multiple clinical rotations. CAATE standard states:"J3.3 There must be opportunities for students to gain clinical experiences associated with a variety of different populations including genders, varying levels of risk, protective equipment (to minimally include helmets and shoulder pads), and medical experiences that address the continuum of care that would prepare a student to function in a variety of settings and meet the domains of practice delineated for a certified athletic trainer in the profession" (CAATE, 2008). CAATE's goal is to try and expose ATSs to the largest variety of injuries possible by having ATSs assigned to different categories of sports. However, because CAATE only requires a two year minimum for ATEPs, most clinical experiences only last two years, and some ATSs are only exposed to three to five different clinical experiences. This drastically limits the amount of injuries they are able to observe.

The more situations that ATSs encounter when they are under direct supervision as an undergraduate student the more prepared they will be as a graduate athletic trainer. Since they have already been exposed to the scenario they will be able to respond more accurately and quickly than if they are encountering it for the first time as a graduate athletic trainer. Thus, as a graduate athletic trainer, stress levels will generally be lower if that graduate athletic trainer is more prepared because they have experienced the situation as an undergraduate ATSs.

2.2 OVERVIEW OF ACCREDITED ATHLETIC TRAINING EDUCSTION PROGRAM

The CAATE Standards are inclusive of the NATA's Educational Competencies and Clinical Proficiencies. Currently in its fourth edition, the NATA competencies are designed to define the skills required of an entry-level ATC to provide athletic training services to patients of differing age, sex, work, lifestyle and need (NATA Competencies, 2006)

The competencies are divided into Foundational Behaviors of Professional Practice, and 12 content areas comprising the knowledge and skill set of the entry-level ATCs. The 12 areas are risk management and injury prevention, pathology of injuries and illnesses, orthopedic clinical exam and diagnosis, medical conditions and disabilities, acute care of injuries and illnesses, therapeutic modalities, conditioning and rehabilitative exercise, pharmacology, psychosocial intervention and referral, nutritional aspects of injuries and illnesses, health care administration, and professional development and responsibility. Each content area is subdivided into behavioral classifications of cognitive domain (knowledge and intellectual skills), psychomotor domain (manipulative and motor skills), and clinical proficiencies (decision-making and skill application). The Foundational Behaviors are basic behaviors that should permeate every aspect of professional practice and should be incorporated into every educational aspect of athletic training education. In addition, cultural competence is included in

the Behaviors, stating the ATC should understand the cultural differences of patients' attitudes and behaviors toward health care, demonstrate knowledge, attitudes, behaviors, and skills necessary to achieve optimal health outcomes for diverse patient populations, and demonstrate knowledge, attitudes, behaviors, and skills necessary to work respectfully and effectively with diverse populations and in a diverse work environment (NATA, 2006).

When referring to the 4th edition of the NATA competencies, none of these competencies focus on teaching ATSs how to deal with the stress of their job. Athletic training students are taught how to help athletes manage emotional stress in terms of injuries or pressure of competition; however, ATSs are not taught how to manage their own stress which is quite different than athletic stress. The only competency that can slightly relate to stress of ATSs, provides information on avoiding and resolving conflicts with peers, supervisors, and subordinates (NATA, 2006). If ATSs are not taught how to manage their own stress, how will they know how to manage it once they become certified and have more responsibilities?

Perhaps stress management can be adopted into professional development competencies. Providing students with the opportunity to manage their stress in a less destructive way will reduce burnout and decrease the odds of the ATSs leaving the profession (Hendrix, Acevedo, & Hebert, 2000). Stress coping mechanisms such as planning, humor, and social support have been shown to be effective in managing stress for graduate athletic training students (Reed, 2004). If these, and other stress management methods are presented in the undergraduate curriculum it could lead to less stress as an ATC possibly resulting in more confidence in ones abilities and higher job satisfaction.

2.3 OVERVIEW OF GRADUTE ATHLETIC TRAINING EDUCATION PROGRAM

2.3.1 On-Site Clinical Assignments

A Master's degree in athletic training includes course work, and depending on the institution, a clinical assignment. As a first year graduate athletic trainer there are multiple clinical settings that may involve responsibilities with limited, to no, direct supervision. On-site clinical assignments often include a graduate athletic trainer being assigned to one or two collegiate level sports. Duties that are included with this assignment include: injury prevention, immediate care, rehabilitation and treatment, administration duties (scheduling doctor appointments, recording injuries, etc…), traveling with teams, and practice/game setup. It is often asked that these students help out with other sports on-site that may not be their primary assignment. Furthermore, those who are newly certified also must cope with the change in authority and nature of their work that comes with certification. These professionals often must adjust to new environments that differ from their undergraduate experiences in clinical and organizational policies and procedures. The change of environment has the potential to overwhelm new graduates, especially if they are unsure of their skills because they are newly certified.

The advantage that is usually present for on-site graduate athletic training students is that there is typically a staff ATC who is available to consult when a graduate athletic trainer is unsure about an injury or how they should handle a situation. The staff ATC can be a great resource for newly certified graduate athletic trainers and can help build their confidence and become more familiar with how an institution operates. On-site graduate athletic trainers also have better access to doctors who can examine injuries or illnesses. Having a doctor to diagnose

a troublesome injury helps a graduate assistant athletic trainer treat the patient. Usually, the same doctor is used for every team member and there is a consistency with diagnoses that makes it easier for a graduate athletic trainer to communicate with the doctor about treatments for their athletes. These two resources can be great resources to lifting some stress off of the shoulders of graduate athletic training students. However, this is only assuming that the staff ATC and team doctors are available and are willing to offer support and cooperate with the graduate athletic trainer.

2.3.2 Off-Site Clinical Assignments

Graduate athletic training students can also be assigned to an off-site setting. The most common off-site settings are at high schools, smaller colleges, or rehabilitation clinics. For those working in high school and smaller college settings they are in charge of taking care of all, or most, of the sports at their assignment. This can include hundreds of athletes responding to one person since there is usually only one ATC at these facilities. The duties of these graduate athletic training students are typically the same as those for on-site: making important decisions, physical work to prepare for games, prepare athletes for competition, rehabilitating athletes, and record injury paper work. In a rehabilitation clinic, graduate athletic trainer's duties will include rehabilitation and treatment, administration duties (recording treatments, scheduling patients, etc…), preparing for new patients (cleaning equipment or preparing treatment tables), and assist physical therapists, physical therapy assistants, occupational therapists, and doctors.

Graduate assistant athletic trainers working at high schools may have more stress at their jobs because they are the only person in their position. In a clinic setting, the graduate athletic trainer is supervised by the physical therapists or doctors who work at this site. Therefore, they

have a chain of command to follow and most decisions are made by the physical therapists or doctors and the treatments are carried out by the graduate athletic training students; so most of the liability will rest upon the physical therapist or doctor who is creating these orders. At a high school, the graduate athletic trainer makes all the decisions with usually no one to immediately refer to in a questionable situation. A high school graduate athletic trainer may not have a team doctor that they can refer all of their athletes too. This can become problematic because of patient's situations with health insurance, and not having any consistency as to who is seeing what doctor.

2.3.3 Course Work

Educational course material will vary depending on the graduate degrees that are offered at the institution that the graduate athletic trainer is attending. Typical master's degrees that are obtained are in athletic training, kinesiology, athletic administration, or public health. Universally, all graduate assistant athletic training students must be full time graduate students and have at least 6 credits per semester. Graduate assistant athletic trainers may have to balance coursework, teaching and research responsibilities, and/or administrative duties, as well as their athletic teams. Thus, graduate assistant athletic trainers may be prime candidates to experience high stress, especially in the first few months of being certified.

2.4 STRESS

2.4.1 Overview of Stress

Stress occurs when perceived demands of a situation exceed the resources (Smith, 1986). Symptoms of stress include irritability, emotional instability and tenseness, concentration and memory problems, fatigue, and changes in appetite (Stilger, Etzel, & Lantz, 2001). Stress is a necessary reaction, but it can create harm by altering quality of life (McChesney & Peterson, 2005). How people react to stress depends on how they view the situation. Some people can thrive on stress and work well with it, while others succumb to it and it will break them down (Scribler & Alderman, 2005).

2.4.2 Stress Related Literature

A study completed by Buddeberg-Fischer et. al. (2008) investigated perceived job stress and its association with the amount of working hours, impact on self-reported health, and satisfaction of life in young physicians during residency. This longitudinal study questioned Swiss medical school graduates at the beginning of their residency and again in their second and fourth years of residency. It was found that stress at work was directly correlated with the amount of working hours required of the resident. Those with constant and increasing stress exhibit significantly worse health and life satisfaction in comparison to those with less stress (Buddeberg-Fisher, Stamm, Siegrist, & Buddeberg, 2008). This is significant to those in the medical community because it has been shown that alumni of medical sciences report a lower life satisfaction than alumni of other facilities (Buddeberg-Fisher, Stamm, Siegrist & Buddeberg, 2008). Athletic trainers fall into the medical sciences category that showed lower life

satisfaction; therefore, showing a need to educate young athletic trainers on how to manage stress in order to live a better life.

Reed's (2004) qualitative study examined stress and coping responses of certified graduate athletic training students. More specifically, Reed interviewed three male and three female graduate athletic trainers to find out what caused their stress. These graduate athletic trainers had an average of 1.5 years of experience at the time of their first interview. Six general sources of stress in certified graduate athletic trainers were reported "athletic training duties, comparing job duties, responsibilities as students, time management, social evaluation, and future concerns." The following stress management mechanisms were used by these six graduate students: planning, instrumental social support, adjusting to job responsibilities, positive evaluations, emotional social support, humor, wishful thinking, religion, mental or behavioral disengagement, activities outside the profession, and other outcomes. The authors concluded that graduate athletic training students should be encouraged to use problem-focused forms of coping with stress, such as planning and seeking out advice from others (Reed, 2004).

Stilger and colleagues (2001) examined life-stress sources and symptoms of collegiate ATSs over a course of an academic year. Participants in this study were 11 male and nine female ATSs enrolled at an accredited undergraduate athletic training education program. In a classroom setting, the athletic training students were administered a Quick Stress Questionnaire (QSQ) at the beginning of each month during an academic year (Stilger, Etzel, & Lantz, 2001). The results of the study found nine factors that caused the most stress in ATSs throughout the year which included: academic concerns, social/personal relationships, family concerns, financial concerns, self-image, health concerns, sexual concerns, and day-to-day hassles. Academic and financial concerns were found to cause the most stress (Stilger, Etzel, & Lantz, 2001). The addition of

stress coping mechanisms to the undergraduate athletic training curriculum would better prepare ATSs for their future careers. Perhaps if stress management education were offered, ATSs could learn to manage their stressors better in undergraduate and this could carry these habits into their graduate careers.

Hendrix's (2000) study assessed the relationship between hardiness, social support, and work related issues relevant to perceived stress and perceived stress to burnout. Personal and situational variables were measured by using the Hardiness Test, the Social Support Questionnaire, and the Athletic Training Issues Survey. Burnout was measured by the Maslach Burnout Inventory and Stress was assessed by using the Perceived Stress Scale. One hundred eighteen National Collegiate Athletic Association (NCAA) Division 1-A ATCs participated in this study. The results reviled that those who scored lower on hardiness and social support and higher on athletic training issues tended to have higher levels of stress (Hendrix, Acevedo, & Hebert, 2000). It is clear that throughout an ATC's career there can be a large amount of stress that is placed upon their shoulders. This stress can amount in the form of burnout and potentially leaving the athletic training occupation. Again, if stress management were added as part of the course work for professional development in undergraduate programs we may be able to lower levels of stress and burn out reported in ATCs and graduate athletic training students.

Capel's (1986) research showed that an athletic trainer's lack of clear guidelines as to what role they play at their institution can become another source of burnout or stress. When job expectations are not clearly labeled, an athletic trainer may not know their responsibilities and consequences of their actions, whether they are performed or not (Capel, 1986). When unclear job descriptions are given, it is up to the athletic trainer to interpret the directions thus leading to ambiguity of what the athletic trainer is expected to do. This ambiguity can lead to more stress

that an athletic trainer is unnecessarily exposed too. Ensuring a successful orientation to a graduate assistant athletic trainer's new school limits ambiguity and in turn, stress on the graduate student.

2.4.3 Stress Management

Stress management is controlling and reducing the stress that occurs in stressful situations by making physical and emotional changes (Zieve & Eltz, 2002). Many universities offer stress management classes, but they are not required as part of the undergraduate athletic training curriculum. It is recommended by some authors that stress management techniques be presented to undergraduate students to prepare them for life as certified athletic trainers (Stilger, Etxel, & Lantz, 2001).

United States National Library of Medicine (NLM) provides five components that can be used to manage the stress one may feel in their life (Zieve & Eltz, 2002). Attitude can affect a person's stress level. If a person has a negative attitude they will often report more stress than those with a positive attitude. This is why it is important to try and keep a positive attitude toward stressful situations. The second component is diet. Poor diets weaken one's immune system and put the body into a physical state of stress. It is recommended to increase fruits and vegetables, use the food guide plate to make healthy meal choices, and to eat proper portions of food on a regular schedule (Zieve & Eltz, 2002). Physical activity is the third component. Those in a sedentary state can put the body in a stressed state. The NLM suggests starting a physical activity routine of at least 20 minutes a day. Finding specific activities that can fit well in your day, along with finding someone to exercise with, can help a person adhere to their exercise program. Support systems help people deal with stressful situations by giving them someone to

talk about the situation about and help provide some answers. Having good social support also means socializing with others on a regular basis. Meeting with friends and family helps people feel less stress (Zieve & Eltz, 2002). The last component recommended by the NLM is relaxation. Practicing yoga, meditation, guided imagery, and listening to music are suggested techniques used for relaxing. Gaining enough sleep is also one of the best ways to manage stress and helping your body to slow down. Using these five components can help those with stressful occupations manage the stress that they have into a more acceptable level.

2.5 ANXIETY

Anxiety is a psychic condition of heightened sensitivity to some perceived threat, risk, peril, or danger (Hunt, 1999). Symptoms of anxiety included apprehensiveness, nervousness, and fearfulness (Frank, 2008). Severe cases of anxiety can develop into an anxiety disorder; anxiety disorders are obsessive compulsive disorder, general anxiety disorder, posttraumatic stress disorder, social anxiety disorder, and depression (ADAA, 2010). An estimated 40 million Americans suffer from an anxiety disorder, with only a third receiving treatment (ADAA, 2010). Workers who are exposed to prolonged or repeated stressful work situations without insufficient recovery may develop psychological reactions in the form of burn out and depression (De Lange, et al., 2009). The occupation of athletic training has the potential to often present the athletic trainer with constant stress. Therefore it is important to find causes of anxiety and stress in athletic trainers so we can prevent health issues such as depression and other anxiety disorders.

2.6 CONCLUSION

Previous research studies have shown not only a link between work and stress, but more specifically that athletic trainers suffer from work related stress. Reed's (2004) study shows the need for more research to be done on graduate athletic training students. The lack of clinical experience and formal education on stress management may be contributing to the amount of stress felt by graduate athletic training students. The addition of stress management courses, along with adjustments made to the clinical experience as undergraduate athletic training students, may potentially make the transition from student to certified athletic trainer easier for graduate athletic training students.

CHAPTER 3

METHODS

3.1 PURPOSE

This chapter will explain the methods used to explore what factors cause the most stress and anxiety in graduate assistant students in the field of athletic training. In addition, this chapter will describe the statistical analysis used for each hypothesis.

3.2 RESEARCH DESIGN

This study used a one-time non-experimental survey. The independent variables were demographic information such as occupational setting, undergraduate and graduate institutions, and the NCAA Divisions of their current and previous educational enrollment. The dependent variables were levels of stress and anxiety experienced and events that triggered high levels of stress. Participants were also be asked what methods were used to combat stress and anxiety, how many semesters were spent in the athletic training room as the clinical aspect of their undergraduate education, if their undergraduate or graduate institutions provided any coursework on stress management, and their opinion on how helpful their graduate institution's orientation was in transitioning them into their new environment.

3.3 PILOT SURVEY DEVELOPMENT

The survey was developed through a pilot questionnaire (Appendix A) administered to first and second year graduate athletic training students. Specifically, four second year graduate athletic training assistant students and two first year graduate assistant students from a master's athletic training program, a NCAA Division I university, were asked to voluntarily participate in

the pilot survey questionnaire. One male and five female students took part in the survey, which included two students from Division 1 NCAA undergraduate schools, two students from Division II institutes and two were from Division III institutes. Two of these graduate athletic trainers had off-site clinical positions, one with a high school and the other with a junior college. The other four participants had clinical positions with MSU varsity athletics.

The results of this pilot questionnaire showed a repetitive trend in four of the six participants that higher levels of perceived stress were found in the first 3 months of their first year as a graduate athletic trainer than in the last 3 months of their first year. The two exceptions to this both listed their stress level as the same for the first and the last three months of their first year. Anxiety showed a similar trend where four students had higher perceived anxiety in the first three months of their graduate assistantship than in the last three months of their first year as a graduate assistant athletic trainer. The two subjects who differed again wrote the same level of anxiety for the first three months and the last three months of their first year as a graduate athletic trainer.

When subjects were asked what were factors that caused their stress the following themes were commonly shown: figuring out their new institution, fulfilling expectations that are given, working with staff athletic trainers, transitioning from student to certified athletic trainer, working with a large patient load, and coursework. When the subjects were asked what factors cause the most anxiety in the first three months of being a graduate assistant athletic trainer traveling and working with coaches were the two themes that were mentioned more than once. A few factors were listed as both causes of stress and anxiety and those were coursework, long hours, and patients.

3.4 INSTRUMENTATION

The instrumentation for this study included three surveys: 1) Demographic Information, 2) Perceived Stress Scale, and 3) an Anxiety Survey. These surveys were sent out to all participants using SurveyMonkey.com. Subjects were questioned on their demographics, stress level, anxiety levels, factors causing stress and anxiety, stress management, and undergraduate and graduate institution.

3.4.1 Demographic Survey

The demographic survey (Appendix B) included a 35 item questionnaire. Demographic information included questions pertaining to age, race, sex, NATA district, graduate position held, undergraduate and graduate institutions, NCAA division for both undergraduate and graduate schools, assistantship duties, and total number of teams and patients responsible for providing athletic training coverage during the academic year. The demographic survey also asks questions pertaining to the graduate student's perceived sources of stress and anxiety. Athletic training graduate students are questioned whether they were given a satisfactory orientation by their graduate institution, if they received a stress management course as an undergraduate ATS or graduate student, and if they would find a stress management course useful as an ATS.

3.4.2 Perceived Stress Scale

The Perceived Stress Scale (PSS) (Appendix C) was used to assess perceived stress among graduate assistant athletic trainers. The PSS was specifically designed to measure how respondents cognitively appraise their stress (Cohen, Kamarck, & Mermelstein, 1983). The instrument has been used since the mid-1980s to assess perceived stress levels in a variety of populations including smokers, college students, and athletic trainers (Cohen et al., 1983;

Hendrix et al., 2000). The PSS measured perceived, non-specific stress that the respondents experienced over the past three month of their lives, delineating how uncontrollable, unpredictable, and overloaded they felt (Cohen & Williamson, 1988). Participants will respond to 14 items using a Likert scale ranging from "never" to "very often". Sample questions included, "in the last month, how often have you been upset because of something that happened unexpectedly?" and "in the last month, how often have you felt on top of things?" The Likert scale was then assigned a point value, "0" corresponding to "never" and "4" corresponding to "very often". Positively worded items will be reversed (never=4, very often=0, etc.) and then the numbers correlating to each of the responses will be summed (Prasad et al., 2011). The scores can range from "0" or "no stress" to "56" or "extreme stress". When interpreting a subjects score, it must be compared to the population to determine level of stress.

Psychometric Properties of PSS. Research has shown the PSS to be both valid and reliable (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988). PSS results have been shown to independently measure stress and not psychological distress (Cohen & Williamson, 1988). The PSS was moderately correlated with life dissatisfaction ($r=.47$, $p<.0001$) (Cohen & Willaimson, 1988). Reliability has also been established, ranging from coefficient alphas of .75 (Cohen & Williamson, 1988) to .85 (Cohen et al., 1983).

3.4.3 Anxiety Survey

The Anxiety Survey (Appendix D) that was distributed was developed by using components of the Sports Anxiety Scale-2 (SAS) and the State-Trait Anxiety Inventory (STAI) form X (Smith et al., 2006; Spielberger, 2010). This survey was customized for graduate athletic trainers by asking about specific events or activities they will encounter. The SAS was developed

to provide a measurement for cognitive and somatic trait anxiety in athletes (Smith, 2006). The STAI asks questions in both positive and negative tones. This format was carried over into the Anxiety Survey that was developed. The STAI was developed to measure state anxiety is reliable and valid for determining anxiety levels in a person's current state (Metzger, 1976). The PSS, SAS, and STAI questions are answered by using a Likert scale; this answering format was carried over into this Anxiety Survey by using a 5 point Likert scale. There are 35 items on the Anxiety Survey with a minimum score of 0 and a maximum score of 140. Participants are questioned on their feelings while covering sporting events, performing athletic training duties, attending class, and completing classwork.

3.5 PROCEDURES

Michigan State University's institutional review board approved this study prior to data collection. Participation was voluntary and only current graduate assistant athletic trainers who are members of the National Athletic Trainers' Association (NATA) were asked to participate in the study. The survey was sent to 555 members of the NATA in the category of "student-certified", meaning they are certified athletic trainers who are working on a higher degree of education.

Survey data was collected from participants using SurveyMonkey.com, which allows researchers to create surveys and send them out to their chosen population. The link for the survey was distributed via electronic mail (e-mail) to the 555 participants that were supplied by the NATA as discussed earlier. The e-mail contained an overview and explanation of the study (see Appendix E), as well as a hyperlink to the survey. The survey is a one-time, self-administered survey completed on a computer with internet access. It was composed of 84 total

items divided into three sections. The order of the sections were demographic, PSS, and the Anxiety Survey. By completing and returning the online survey, participants consented to participating in the study. Participants were allowed to withdraw at any time without penalty and were allowed to skip questions. A follow up e-mail was sent after two weeks to remind participants to complete the survey. Because of the nature of SurveyMonkey.com, the instrument was available 24-hours per day for a one month test period. The survey took approximately 15-20 minutes to complete.

3.6 DATA ANALYSIS

Demographic information and scores from the PSS and Anxiety were summarized using descriptive data. All data collected was nominal data. The statistical significance level was set at $p<.05$. Data was analyzed using the Statistical Package for the Social Sciences (SPSS) 18.0 software.

The following statistical analyses were used with the hypotheses:

H1: First year graduate assistant athletic trainers will experience higher levels of stress compared to second year graduate assistant athletic trainers as measured by the Perceived Stress Scale.

An independent t-test and descriptive statistics using means and standard deviations was performed on the PSS.

H2: First year graduate assistant athletic trainers will experience higher levels of anxiety compared to second year graduate assistant athletic trainers.

An independent t-test and descriptive statistics using means and standard deviations was performed on the Anxiety Survey.

H3: First year graduate assistant athletic trainers are not satisfied with the orientation given to them prior to graduate school compared to second year graduate assistant athletic trainers.

An independent t-test and descriptive statistics using means and standard deviations was performed.

H4: Graduate assistant athletic trainers in an off-site high school setting will experience higher levels of anxiety than those in an on-site setting.

An independent t-test was performed.

H5: Graduate assistant athletic trainers in an off-site high school will experience higher levels of stress than those in an on-site setting.

An independent t-test was performed.

H6: Graduate assistant athletic trainers who attended an NCAA Division II, III, or NAIA undergraduate institution will experience more stress than those students who attended an NCAA Division I undergraduate institution.

An independent t-test and descriptive statistics using means and standard deviations was conducted to determine the difference between perceived stress and the NCAA Divisions of the athletic trainers' current institutions.

The following statistical analyses were used with the research questions:

RQ1: Will the majority of graduate assistant athletic trainers state that they do not have any formal education on stress management or stress management techniques as an undergraduate athletic training student?

Descriptive statistics using means and standard deviations was performed.

RQ2: Will graduate assistant athletic trainers show interest in the addition of stress management in their undergraduate athletic training education program?

Descriptive statistics using means and standard deviations was performed.

RQ3: Will the factors that cause stress and anxiety in graduate assistant athletic trainers include: poor orientation by graduate institution, transitioning from student to certified athletic trainer, coursework load, lack of social support, encountering new athletic injuries, patients/athletes, lack of support from staff members, new environment, and lack of preparation by undergraduate institution for emergency situations?

Descriptive statistics was performed.

CHAPTER 4

RESULTS

4.1 OVERVIEW

The following research was done to examine what factors caused stress and anxiety in graduate assistant athletic training students and their current level of stress and anxiety. The following chapter will describe the results including demographic information of the sample, interests in stress management, perceived stress, and anxiety.

4.2 DEMOGRAPHIC DATA

4.2.1 General Demographics.

One hundred and fifty six participants began the survey; however 22 were not current graduate assistant athletic training students as a result their data was not collected. Eleven surveys were eliminated because they were not completed. Therefore, the total participants that were used for this study was 123, for a response rate of 22.1%.

There were substantially more female participants (91/122[74.6%]) than male participants (31/122)[25.4%]). The majority of participants were Caucasian (112/122[91.1%]) (see Table 4.1). The graduate assistant athletic trainer was certified for an average of 13.47±8.76 months, with a minimum of 4 months and a maximum of 56 months. The average age of theses graduate athletic training students was 23.33±1.29 years with a minimum age of 21 and a maximum age of 28.

Table 4-1

Percentage of Race Represented by Graduate Athletic Training Students

Race	Number of Participants	Percent
Caucasian	112	91.1
African American	2	1.6
Hispanic/ Latin American	2	1.6
Asian	3	2.4
Two or more races	3	2.4
Total	122	100

Almost 45% of participants graduated from their undergraduate institution in 2010 (see Table 4-2). The undergraduate institution's NCAA Divisions that were most attended were Division I and Division III (see Table 4-3). The most represented NATA district for undergraduate institutions was District 4 (see Table 4-4). Participants were most likely to have spent six semesters of their undergraduate education in an athletic training education program. (56/123 [45.5%]) (see Table 4-5).

Table 4-2

Participant's Year They Graduated from Their Undergraduate Education

Year	Number of Participants	Percent
2000	1	.8
2007	2	1.6
2008	3	2.4
2009	9	7.3
2010	55	44.7
2011	53	43.1
Total	123	100

Table 4-3

Percentage of NCAA Divisions Represented by Graduate Assistant Athletic Trainer's Undergraduate Institutions

NCAA Division	Number of Participants	Percent
I	64	52
II	17	13.8
III	33	26.8
NAIA	9	7.3
Total	123	100

Table 4-4

Percentage of NATA Districts Represented by Graduate Assistant Athletic Trainer's Undergraduate Institutions

District	Number of Participants	Percent
District 2	18	14.6
District 3	10	8.1
District 4	39	31.7
District 5	16	13
District 6	5	4.1
District 7	4	3.3
District 8	3	2.4
District 9	12	9.8
District 10	1	.8
Total	123	100

Table 4-5

Percentage of Number of Semesters Participants Spent in ATEP

Semesters in ATEP	Number of Participants	Percent
Two	1	.8
Three	4	3.2
Four	28	22.8
Five	27	21.9
Six	56	45.5
Seven	4	3.3
Eight	3	2.4
Total	123	100

Graduate athletic training students predominately attended a graduate institution that was Division I (96/123[78%]). The smallest representation came from graduate students at NAIA institutions (3/123[2.4%]) (see Table 4-6). NATA District 4(35/123 [28.5%]),District 3(18/123 [14.6%], and District 5(12/123[9.8%]) had the largest representation by graduate athletic training students' graduate institutions (see Table 4-7)

Table 4-6

Percentage of NCAA Divisions Represented by Graduate Assistant Athletic Trainer's Graduate Institutions

NCAA Division	Number of Participants	Percent
I	96	78
II	15	12.2
III	9	7.3
NAIA	3	2.4
Total	123	100

Table 4-7

Percentage of NATA Districts Represented by Graduate Assistant Athletic Trainer's Graduate Institutions

District	Number of Participants	Percent
District 2	9	7.3
District 3	18	14.6
District 4	35	28.5
District 5	12	9.8
District 6	11	8.9
District 7	9	7.3
District 8	3	2.4
District 9	19	15.4
District 10	4	3.3
Total	123	100

The majority of participants will be graduating with their master's degree in 2012 (65/123 [52.8%]) and 2013 (54/123[43.9%]) (see Table 4-8). Participants in their first year of graduate education counted for 51% (63/123) of the total sample. Second year graduate students followed with 47.2% (58/123) and third year students were 1.6% (2/123) of the total sample. The majority of graduate students (106/123 [86.2%]) did not take part in a one year internship.

Table 4-8

Percentage of Participants Year of Graduate Graduation

Year Completed Graduate School	Number of Participants	Percent
2011	1	.8
2012	65	52.8
2013	54	43.9
2014	2	1.6
Total	123	100

4.2.2 Position Demographics.

Participants were asked what duties they performed as an athletic trainer. Each participant was allowed to answer one or more duties. The majority of graduate athletic training assistants stated that they worked clinically (117/123 [95.1%]). Over half of the graduate athletic training students were clinical instructors (CI) or approved clinical instructors (ACI) (72/123 [58.5%]). Approximately one third of participants taught courses (46/123 [37.4%]) or conducted research (42/123 [34.1%]). Finally, 31 participants (25.2%) stated that at least one of their duties was administration. Of the 123 participants in the survey, 83 (67.5%) worked on-site at their graduate institution (see Table 4-9) and 40 (32.5%) worked off-site (see Table 4-10). Eighty percent (99/123) of graduate athletic training students had a sport that they work with in-season within the last three months prior to taking the survey.

Table 4-9

Percentage of On-Site Settings for Graduate Assistant Athletic Trainers

On-Site Assignment	Number of On-Campus Participants	Percent
Club sports only	4	4.8
Varsity and Club sports	1	1.2
ATEP	2	2.4
Other	4	4.8
Total	83	100.0

Table 4-10

Percentage of Off-Site Settings for Graduate Assistant Athletic Trainers

Off-Site Assignment	Number of Off-Campus Participants	Percent
Middle School only	2	5
Community College only	2	5
Another college/university different from degree granting institution	11	27.5
High School and Middle School	4	10
Three or more settings	1	2.5
Total	40	100.0

As expected, off-site graduate assistant athletic trainers were responsible for over 3 times as many athletes as on-site graduate assistant athletic trainers (see Table 4-11). Out of all the graduate assistant athletic trainers off-site, 82.5% (33/40) of respondents could refer patients to a physician. Table 4-12 shows how many days per week physicians were available for the on-site graduate assistant athletic trainers.

Table 4-11

Number of Patients That Are Seen By Graduate Assistant Athletic Trainers

	On-Site	Off-Site
N	75	38
Minimum	11	50
Maximum	250	600
Mean	78.68	243.89
Standard Deviation	151.251	56.406

Table 4-12

Frequency of Physician Visits On-Site to Treat Athletes

Days	Frequency	Percent
1	32	28.8
2	22	19.8
3	11	9.9
4	2	1.8
5	8	7.2
6	5	4.5
7	8	6.5
Home Events Only	1	.9
On-Call	2	1.8
Total	111	100.0

Participants were asked if they were given an orientation at their graduate institution and the quality of the orientation. The majority of participants stated that they did receive an orientation (101/123 [82.1%]) and their ratings for how successful they found their orientation

can be found on Table 4-13. For those participants that stated they did not receive an orientation, they were asked if they thought it would have helped with their transition to graduate school if an orientation was provided. Approximately half (14/31 [45.2%]) of the participants answered "Very Much So" followed by "Moderately So" (12/31 [38.7%]) (see Table 4-14).

Table 4-13

Was Your Orientation Successful in Helping You Transfer to Your Graduate Institution?

	Frequency	Percent
Very Much So	7	6.9
Moderately So	38	37.6
Somewhat	40	39.6
Not At All	16	15.8
Total	101	100.0

Table 4-14

Would it Have Been Helpful in Transitioning to Your Graduate Institution if an Orientation Was Provided?

	Frequency	Percent
Very Much So	14	45.2
Moderately So	12	38.7
Somewhat	4	12.9
Not At All	1	3.2
Total	31	100.0

4.2.3 Stress Demographics

Participants were asked if they enrolled in a stress management course in their undergraduate intuition. A large majority (118/123 [95.9%]) did not enroll in a stress management class as an undergraduate student. Participants were then asked if at some point in their undergraduate education they were taught stress management techniques. The responses were almost equal, with 52.8% (65/123) not being taught any stress management techniques and 47.2% (58/123) were taught how to use stress management techniques. Graduate assistant athletic training students were asked if they take part in the following stress management techniques: Positive attitude, eating a healthy diet, physical activity, social support, religion, or rest. These results can be found on Table 4-15.

Table 4-15

Stress Management Techniques Utilized by Graduate Assistant Athletic Trainers

N=123	Number of Participants	Percent
Positive Attitude	64	52
Eating a Healthy Diet	58	47.2
Physical Activity	101	82.1
Social Support	105	85.4
Religion	37	30.1
Rest	56	45.5
No Stress management Techniques	5	4.1

Participants were then asked if the techniques that are listed above help to manage their stress. The most common answer was "Fairly Often" (53/123 [43.1%]), followed by "Sometimes" (45/123), and "Very Often" (16/123) (see Table 4-16). Over half the graduate assistant athletic trainers (76/123[61.8%]) were not interested in taking a stress management course. Graduate assistant athletic trainers were asked what the main cause/s of stress and anxiety in their first year of being a graduate assistant athletic trainer. The most frequent answers were new environment (80/123 [65%]), transitioning from student to certified athletic trainer (79/123 [64.2%]), graduate coursework (66/123 [53.7%]), lack of communication (66/123 [53.7%]), and long hours (66/123 [53.7%]) (see Table 4-17).

Table 4-16

Do You Find That the Stress Management Techniques You Use Helps Manage Your Stress?

	Number of Participants	Percent
Very Often	16	13
Fairly Often	53	43.1
Sometimes	45	36.6
Almost Never	6	4.9
Never	3	2.4
Total	123	100.0

Table 4-17

Percentages of the Main Causes of Stress and Anxiety in Graduate Assistant Athletic Trainers

N=123	Number of Participants	Percent
Poor Orientation by Graduate Institution	47	38.2
Transitioning from Student to Certified Athletic Trainer	79	64.2
Graduate Coursework	66	53.7
Lack of Social Support	39	31.7
Encountering New Athletic Injuries	39	31.7
Patients/Athletes	44	35.8
Staff Members	32	26.0
New Environment	80	65
Coaches	53	43.1
Long Hours	66	53.7
Lack of Preparation for Emergency Situations	14	11.4
Teaching Responsibilities	16	13
Lack of Communication	66	53.7
Traveling	18	14.6

4.3 ASSESSMENT OF ANXIETY SURVEY

Of the 123 participants, 119 completed the anxiety survey. The average score for the anxiety survey was 38.09±16.11. The minimum score was 3 with a maximum score of 82 out of a possible 140 points. Each individual question's mean and standard deviation can be seen on Table 4-18.

Table 4-18

Results for Each Question on the Anxiety Survey

N=119	Mean	Standard Deviation
*At ease when working at clinical site	1.25	0.67
Upset when time to go to clinical site	1.12	0.89
Anxious when attending graduate classes	1.03	0.82
Worrying about emergency situations	1.23	0.92
Anxious on game days	1.44	0.96
*Comfortable at clinical site	0.65	0.70
*Self-confident in decisions made as athletic trainer	0.87	0.61
Nervous during sporting events	1.32	0.86
Regretful about taking graduate position	0.86	1.05
Jittery before start of day	0.61	0.78

Table 4-18 (cont'd)

"High-Strung" after coming home from clinical site	1.49	0.94
*Relaxed at clinical assignment	1.24	0.68
*Content with clinical assignment	0.94	0.74
*Confident in school work	0.97	0.73
Worried about future injuries	1.34	0.92
Over-excited and rattled during games	0.81	0.74
Hard to concentrate during athletic event	0.64	0.70
*Joyful about clinical assignment	1.21	0.72
*Pleasant in athletic training room/clinic	0.98	0.66
Cry when think of clinical site	0.49	0.88
Wish they were as happy about job as other graduate assistants seem	1.05	1.17
*"Calm, Cool, and Collected" at clinical site	0.9	0.66
Difficulties with clinical and classwork are piling up	1.40	0.99
Worry too much about things that do not matter	1.60	0.89
*Happy about graduate assistantship position	0.78	0.75
Tight muscles due to nervousness during athletic events	0.55	0.70

Table 4-18 (cont'd)

*Comfortable with GPA	0.76	0.70
Worry will not complete classwork on time	1.46	1.00
Lack self-confidence in athletic training abilities	2.27	0.84
*Secure in position held	0.90	0.64
Avoid facing crisis or difficulty	1.64	1.02
Worry perform badly or let others down	1.48	0.99
Tension/turmoil thinking of athletic training concerns	1.01	0.91
Tense during athletic events	0.86	0.79
*Calm during athletic events	0.97	0.64

*Question was written in positive manner, thus reversing scoring method

4.4 ASSESSMENT OF PERCIEVED STRESS SCALE

Graduate assistant athletic trainers also completed the Perceived Stress Scale (PSS). All 123 participants completed the scale. The average score for the PSS was 24.43±6.05. The minimum score for the PSS was 7 while the maximum score was 39 out of a possible 56 points.

4.5 ASSESSMENT OF HYPOTHESES

H1: *First year graduate assistant athletic trainers will experience higher levels of stress compared to second year graduate assistant athletic trainers as measured by the Perceived Stress Scale.* This hypothesis was not supported as there was similar levels of perceived stress

between first and second year graduate assistant athletic trainers (t=-0.072, p=.942). The mean score from the PSS for first year graduate assistant athletic trainers was 24.39 ±6.09 and the mean score for second year graduate assistant athletic trainers was 24.47± 6.05.

H2: *First year graduate assistant athletic trainers will experience higher levels of anxiety compared to second year graduate assistant athletic trainers.* This was not supported as there was no difference in total anxiety levels between first and second year graduate assistant athletic trainers (t=-0.261, p=0.794). The mean total anxiety score for first year graduate assistant athletic trainers was 37.88± 16.52 and second year graduate assistant athletic trainers was 38.64± 15.25.

H3*: First year graduate assistant athletic trainers are not satisfied with the orientation given to them prior to graduate school compared to second year graduate assistant athletic trainers.* The hypothesis was not supported as first and second year students had similar experiences with their orientation (t=-0.676, p=0.50) (see Table 4-19).

Table 4-19

First and Second Year Graduate Assistants' Opinion on Successfulness of Orientation

	First Year Graduate Assistants		Second Year Graduate Assistants	
	Frequency	Percent	Frequency	Percent
Very Much So	5	9.6	2	4.1
Moderately So	22	42.3	16	32.7
Somewhat	17	27	23	46.9
Not At All	8	12.7	8	13.3
Total	52	100.0	60	100.0

H4: *Graduate assistant athletic trainers in an off-site high school setting will experience higher levels of anxiety than those in an on-site setting*. This hypothesis was also not supported as there were similar levels of anxiety for off-site (38.43±19.09) as on-site (37.54±14.97) graduate assistant athletic trainers (t=0.191, p=0.849).

H5: *Graduate assistant athletic trainers in an off-site high school will experience higher levels of stress than those in an on-site setting.* This hypothesis was not supported as off-site and on-site graduate assistant athletic trainers had similar scores on the PSS (t=.098, p=.922). The PSS mean for on-site athletic trainers was 24.39±6.34 and off-site athletic trainers were 24.50±5.49.

H6: *Graduate assistant athletic trainers who attended an NCAA Division II, III, or NAIA undergraduate institution will experience more stress than those students who attended an NCAA Division I undergraduate institution.* Again, this hypothesis was not supported as NCAA Division did not factor into stress levels of graduate assistant athletic trainers (t=-.686, p=.494). The mean PSS for graduate assistant athletic trainers from Division I undergraduate institutions were 24.06 ±6.50 followed by a mean of 24.81±5.56 for graduate assistant athletic trainers from Division II, III or NAIA undergraduate institutions.

4.6 ASSESSMENT OF RESEARCH QUESTIONS

RQ1: *Will the majority of graduate assistant athletic trainers state that they do not have any formal education on stress management or stress management techniques as an undergraduate athletic training student?* The data collected showed an overwhelming majority of graduate assistant athletic trainers have not had any formal education in stress management (95.9% [118/123]). Only five participants had taken a stress management course (4.1%).

RQ2: *Will graduate assistant athletic trainers show interest in the addition of stress management in their undergraduate athletic training education program?* When asked if participants have an interest in taking a stress management course 47 (38.2%) stated they would like to take such a course. Seventy six participants stated they had no interest in taking a stress management course (61.8%).

RQ3: *Will the factors that cause stress and anxiety in graduate assistant athletic trainers include: poor orientation by graduate institution, transitioning from student to certified athletic trainer, coursework load, lack of social support, encountering new athletic injuries, patients/athletes, lack of support from staff members, new environment, and lack of preparation by undergraduate institution for emergency situations?* The greatest cause of stress and anxiety in participants was being introduced into a new environment (80/123 [65%]). The second greatest cause of stress and anxiety to participants was transitioning from student to certified athletic trainer (79/123 [64.2%]). The two factors that caused the least amount of stress and anxiety to graduate assistant athletic trainers were lack of preparation for emergency situations by undergraduate institution (14/123 [11.4%]) and teaching responsibilities (16/123 [13%]). The remaining factors can be seen on Table 4-17.

CHAPTER 5

DISCUSSION

5.1 OVERVIEW

This study explored factors related to stress and anxiety of graduate assistant athletic training students. Results of this study did not find significant differences between first and second year graduate assistants on levels of stress and anxiety. This study determined that the main causes of stress and anxiety for graduate assistant athletic trainers were new environment and transitioning from student to certified athletic trainer. Finally, the majority of participants were satisfied with their orientation that was provided by their graduate institution. This chapter will therefore discuss the relevant findings and factors related to perceived stress and anxiety among the graduate assistant athletic trainers who participated in the study.

5.2 PERCEIVED STRESS SCALE

First year graduate athletic training students that participated in this study were found to have similar levels of perceived stress compared to second year graduate athletic training students. Despite the lack of supervision and resources, no significant differences in levels of perceived stress were found between graduate assistant athletic trainers in on-site (24.39±6.34) and off-site(24.50±5.49) clinical settings. Prior research has found that Division I athletic trainer's average PSS score is 23.8 for non-football athletic trainers and 24.6 for athletic trainers working with football teams (Hendrix et al., 2000). Participants in this study were found to have a comparable PSS score of 24.43. In comparison with other medical professionals, graduate assistant athletic trainers had a lower score on the PSS than pharmacy students in the doctoral stage of their program (Marshall et al., 2008). Thus, the PSS scores, when compared to prior

research, suggest that graduate assistant athletic trainers, either on or off-site, do not display elevated levels of perceived stress. Stress is often associated with burnout; therefore the low stress levels for graduate assistant athletic trainers found in this study show may also indicate low levels of burnout.

Findings from this study indicated that undergraduate NCAA Division (I,II, III, and NAIA) had little effect on stress levels if the graduate assistant athletic trainer was attending a NCAA Division I graduate institution. This indicates that athletic training students graduating from a Division II or lower are able to manage stress and are just as prepared as Division I graduates. This study's findings are supported by previous research stating that NCAA Division does not have any effect on athletic trainer's job satisfaction and intention to leave the occupation (Terranova & Henning, 2011). The results were surprising, because Division I institutions are larger and thought to have the greatest amount of stress. However, Division II, III, and NAIA institutions may have smaller ATEPs, therefore they are used to working with less people. Graduate assistant athletic trainers from these programs may be used to the decreased supervision from their undergraduate staff and are more than capable of handling the stress that is involved with Division I athletics.

The most common factors for causing stress and anxiety were found to be new environment, transitioning from student to certified athletic trainer, graduate coursework, long hours, and lack of communication. In a qualitative study, Reed (2004) indicated that athletic training duties, comparing job duties, responsibilities as students, time management, social evaluation, and future concerns were sources of stress. Although both Reed's and this study do not share specific stressors and cause of anxiety, certain aspects of each can be associated with each other. For example, graduate coursework is one responsibility that needs to be taken care of

as a graduate student and learning a new environment and working long hours are components of completing athletic training duties. Therefore, both studies have found the same or similar factors for causing stress in graduate assistant athletic trainers.

To help reduce stress caused by transitioning from ATS to ATC, CAATE can create different standards allowing students to work alone and encourage decision making skills. Allowing ATSs to periodically work under low risk situations without or with less supervision can help ease students into their role as an ATC once they pass the board of certification. Without an ATC hovering over the ATS, the ATS will be forced to complete similar athletic training duties they may see as a certified athletic trainer. There will still be a safety net for the ATS, but they will have freedom to make athletic training decisions. Therefore lessening the stress they will feel in the future when doing these skills for the first time as a graduate assistant athletic trainer.

As an alternative to this solution, when graduate assistant athletic trainers first start their new positions at their institution, staff members should check in with graduate assistant athletic trainers at practices or games; especially those who are in off-site settings. Checking in with graduate assistants will not only be a stepping stool to help them adjust to being a certified athletic trainer, but it will also allow them freedom and the ability to build confidence in their abilities at being left alone.

5.3 ANXIETY SURVEY

The current study did not find significant differences on anxiety between first and second year graduate athletic training students. Surprising, because it was thought that anxiety would decrease among second year graduate assistant athletic trainers because they have had one year

of experience as a certified athletic trainer. Although, results from the anxiety survey found that the greatest cause of anxiety can be related to a lack of confidence in participant's athletic training skills. Other causes of anxiety indicated by the survey were from trying to avoid crisis or difficulty and worry about things that did not matter. However, the average anxiety score was considerable low considering participants could have scored as high as 140 points. Factors that caused the least anxiety in graduate assistant athletic training students were, crying when thinking of their athletic training room and tight muscles.

Anxiety follows the same pattern as stress in this study in the sense that there are no significant differences in anxiety level between on-site and off-site graduate assistant athletic trainers. The survey in this study has no previous research because it was developed by using resources from both the Sports Anxiety Scale-2 (SAS) and the State-Trait Anxiety Inventory (STAI) form X. Research on ATSs Peer Assisted Learning (PAL) found that 60% of ATSs are less nervous when they perform athletic training duties on patients in front of their peers than clinical instructor (Henning, Weidner, & Jones, 2006). This study suggests that graduate assistant athletic trainers have learned to decrease their anxiety from when they were ATSs, however they still have confidence issues as a newly certified athletic trainer.

5.4 GRADUATE INSTITUTION'S ORIENTATION

It was found that both first and second year graduate assistant athletic trainers shared the same opinion on their graduate institution's orientation. First and second year graduate assistants thought that their orientation was moderately or somewhat successful in helping them transition to their graduate institution. However, this indicated that there is room for improvement on orientation related to graduate assistant athletic training students. Henning's research on role strain in ACI's found that when ACIs were not properly trained for their roles that they

experienced greater role strain (2008). Role strain has been found to cause stress and burn out in athletic training (Capel, 1986). Thus graduate athletic training programs should provide a complete orientation to graduate school and the athletic training rooms.

5.5 STRESS MANAGEMENT TECHNIQUES AND STRESS MANAGEMENT CLASSES

This study indicated that a large number of athletic trainers did not take a formal class on stress management in their undergraduate education (95.9%). However, this did not affect the interest in taking a stress management course because 61.8% (76/123) of participants stated that they did not have an interest in taking a stress management class. These statistics go against the recommendations made by previous research for adding a stress management course to the ATEP curriculum (Stilger, Etxel, & Lantz, 2001). This response to taking a stress management course could be explained by graduate assistant athletic trainers not wanting to add to the course load that they are already presented with since course work was one of the main causes of stress and anxiety of the participants surveyed. Despite the lack of interest in stress management courses, all athletic training programs should consider the addition of a stress management to help ATSs and graduate assistant athletic trainers manage the stressors they have to deal with on a daily basis.

The greatest form of stress management used was social support with 85.4% of participants using this method. In contrast to the previous statements, only 4.1% of participants reported not using any form of stress management. This statistic shadows the recommendations made by Reed (2004) for athletic trainers to use others for support and advice, along with planning to reduce stress. Research on ATSs' retention in athletic training programs has also found a reoccurring theme of social support as key to ATSs staying in athletic training programs

(Dodge, Mitchell, Mensch, 2009). Perhaps the participants' mean PSS score was similar to staff ATC's because graduate assistant athletic trainers are using social support and other stress management techniques. ATEP and graduate institutions should consider hosting social events for ATSs and graduate assistant athletic trainers. Non-educational social events can provide the social support that has been repeatedly shown in research to reduce stress for both ATSs and graduate assistant athletic trainers.

5.6 LIMITATIONS

There were multiple limitations that this study faced, first this study comprised of a small sample size. The original goal was to send the survey to 1,000 NATA student-certified athletic trainers. However, the NATA only had 555 members listed in this category. Using the NATA for participants decreased the survey's same size because those graduate assistant athletic trainers who are not NATA members, are not listed as "student certified", or those who did not elect to receive research surveys were not asked to participate. A second limitation to this study was the use of only current graduate assistant athletic trainers. Past graduate assistant athletic trainers were not surveyed; therefore there is the possibility of different results being acquired if past graduate assistant athletic trainers were surveyed.

Finally, this survey did not use an already valid and reliable anxiety survey. Although the STAI has been shown to be reliable and valid it could not be used due to lack of funding and copyright laws preventing re-publication without consent. The anxiety survey that was used for this study has not been previously used; therefore, its validity and reliability is unknown.

5.7 FUTURE RESEARCH

Future research needs to be done on this population to gain more knowledge on the specific population of graduate assistant athletic trainers. Additional research should be done to study a larger portion of the population and see if the results of this study are replicated. An easily replicated anxiety scale, that is both valid and reliable, also needs to become more readily available for those who want to conduct further anxiety research for any athletic training population.

The moderate success for graduate institutions' orientation shows warrant for more research to be done on orientations for graduate assistant athletic trainers. Little research can be found on this specific topic currently leaving it difficult to compare the results of this study. Lastly, research comparing males' and females' stress and anxiety levels to see if there is any statistical sex difference should be considered in the future.

5.8 CONCLUSION

The results of this study found that though perceived stress in graduate assistant athletic trainers was comparable to staff athletic trainers at NCAA Division I institutions, transitioning from athletic training student to certified athletic trainer and a new environment are the most common factors that cause stress and anxiety in graduate athletic training students. A high percentage of graduate assistant athletic trainers use stress management techniques and these techniques appear to be effective in managing stress. Division II, III, and NAIA undergraduate institutions are generating graduate assistant athletic trainers that are able to handle stress at the same rate as Division I undergraduate institutions. However, little is known about what topics are included in graduate institution's orientations for graduate assistant athletic trainers. Overall, the

low levels of stress and anxiety that were found in this study shed a positive light on the future of graduate assistant athletic trainers and their mental health.

APPENDICES

APPENDIX A

PRE-SURVEY QUESTIONNAIRE

1. Please list your age, gender, year in grad school, graduate position/s, undergraduate school and what NCAA division title your undergraduate and graduate schools were a part of (ex. Division I, II, III).

2. On a scale of 1 to 5, 1 being no stress and 5 being very high amount of stress, how would you rate your first three months of your first year being an athletic training graduate assistant?

3. On a scale of 1 to 5, 1 being no stress and 5 being very high amount of stress, how would you rate your last three months of your first year being an athletic training graduate assistant?

4. What were the most common causes of stress in your first year of being an athletic training graduate assistant?

5. On a scale of 1 to 5, 1 being no anxiety and 5 being overwhelming anxiety, how intense was any anxiety your felt during the first three months of your first year being an athletic training graduate assistant?

6. On a scale of 1 to 5, 1 being no anxiety and 5 being overwhelming anxiety, how intense was any anxiety your felt during the last three months of your first year being an athletic training graduate assistant?

7. What situations would give you the highest amount of anxiety during your first year at graduate school?

8. How did you manage the stress and anxiety you may have felt during your first year of graduate school? What activities did you participate in?

9. How did your undergraduate education prepare your for high intensity/stressful situations as a graduate athletic training student? E.g. Med. Emergences, exams, etc…

10. In your undergraduate education, were you taught about stress management, and if so, what techniques were given?

11. Are you satisfied with how your undergraduate program prepared you for stressful situations as a certified graduate athletic training student?

12. What could your undergraduate athletic training program added in order to help make a transition from student to graduate assistant less stressful?

13. Are you satisfied with how your graduate program has helped prepared you for stressful situations?

14. What could your graduate athletic training program added in order to help make a transition from student to graduate assistant less stressful?

15. For Graduated Masters Students Only: Did you feel that your stress & anxiety levels differed from your first year as a graduate athletic training student appose to your second year as a graduate athletic training student? If so, which year did you think had the higher amounts of stress and anxiety?

16. For Graduated Masters Students Only: What do you believe is the reasoning as to why you felt different levels of stress and anxiety between your 1st and 2nd year as a graduate athletic training student?

APPENDIX B

DEMOGRAPHIC SURVEY

1. Are you currently an athletic training graduate assistant?
    a. Yes
    b. No
2. What year in graduate school are you currently in?
    a. 1
    b. 2
    c. 3
    d. 4
    e. 5+
3. Have you completed a one year internship program?
    a. Yes
    b .No
4. How many months have you been certified as an athletic trainer? _____
5. What is the estimated year of your graduate degree completion? _____
6. What is your current age? ___
7. What race best describes yourself:
    a. Caucasian/White
    b. African/ African American/ Black
    c. Hispanic/Latin American
    d. American Indian/Eskimo
    e. Asian (including Hawaiian & Pacific Islander)
    f. Two or more races
    g. Prefer not to report
8. What is your gender?
    a. Male
    b. Female
9. Of which NCAA division is your UNDERGRADUATE institution a part of (pick division under which most sports compete)?
    a. 1-A
    b. 1-AA
    c. 1-AAA
    d. 2
    e. 3
    f. NAIA
10. Which NATA District is your UNDERGRADUATE institution a member of?
    a. 1 (CT, ME, MA, NH, RI, VT, Quebec, New Brunswick, Nova Scotia)
    b. 2 (DE, NY, NY, PA)

c. 3 (DC, MD, NC, SC, VA, WV)
d. 4 (IL, IN, MI, MN, OH, WI, Manitoba, Ontario)
e. 5 (IA, KS, MO, NE, ND, OK, SD)
f. 6 (AR, TX)
g. 7 (AZ, CO, NM, UT, WY)
h. 8 (CA, NV, HI, Guam)
i. 9 (AL, FL, GA, KY, LA, MS, TN, Puerto Rico, Virgin Islands)
j. 10 (AK, ID, MT, OR, WA, Alberta, British Colombia, Saskatchewan)

11. What year did you graduate from your UNDERGRADUATE institution? _____
12. How many semesters were you in the clinical setting at your undergraduate program (not including observation)? _____
13. In your undergraduate education did you ever enroll in a stress management course?
    a. Yes
    b. No
14. In your undergraduate education were you ever taught on how to use self-stress management techniques?
    a. Yes
    b. No
15. Do you partake in any of the following stress management techniques?
    a. Positive attitude
    b. Eating a healthy diet
    c. Physical activity
    d. Social support (Friends, Family, Peers, Etc.)
    e. Religion
    f. Rest (meditation, yoga, time outs for oneself)
    g. I do not participate in stress management techniques
    h. Other
16. Do you find that the stress management techniques that you used help manage your stress?
    a. Very often
    b. Fairly often
    c. Sometimes
    d. Almost never
    e. Never
17. Are you interested in taking a course in stress management?
    a. Yes
    b. No
18. Of the following, which would you find to be the main cause for stress and anxiety in your first year of being a graduate assistant athletic trainer (check all that apply)?
    a. Poor orientation by graduate institution
    b. Transitioning from student to certified athletic trainer

c. Graduate Coursework
d. Lack of social support
e. Encountering new athletic injuries
f. Patients/athletes
g. Working with staff members
h. New environment
i. Lack of communication
j. Traveling
k. Working with Coaches
l. Long hours
m. Teaching responsibilities
n. Lack of preparation by undergraduate institution for emergency situations
o. Other (please specify)_____

19. Of which NCAA division is your GRADUATE institution a part of (pick division under which most sports compete)?
    a. 1-A
    b. 1-AA
    c. 1-AAA
    d. 2
    e. 3
    f. NAIA
20. Which NATA District is your GRADUATE institution a member of?
    a. 1 (CT, ME, MA, NH, RI, VT, Quebec, New Brunswick, Nova Scotia)
    b. 2 (DE, NY, NY, PA)
    c. 3 (DC, MD, NC, SC, VA, WV)
    d. 4 (IL, IN, MI, MN, OH, WI, Manitoba, Ontario)
    e. 5 (IA, KS, MO, NE, ND, OK, SD)
    f. 6 (AR, TX)
    g. 7 (AZ, CO, NM, UT, WY)
    h. 8 (CA, NV, HI, Guam)
    i. 9 (AL, FL, GA, KY, LA, MS, TN, Puerto Rico, Virgin Islands)
    j. 10 (AK, ID, MT, OR, WA, Alberta, British Colombia, Saskatchewan)
21. Of the choices below, what best describes the duties that you are required to perform by your job description as a graduate assistant athletic trainer at your institution? (Mark all that apply)
    a. Clinical (working directly with athletes/patients)
    b. Teaching (assistant teaching and/or instructing courses)
    c. Administrative (insurance, budget management, etc. NOT INCLUDING normal administrative work such as doctor's visits, treatment logs, etc. for assigned patients)

d. Research (assisting with/conducting research, writing grants, analyzing data, assisting with the publication process, etc. NOT INCLUDING a capstone project, master's thesis, doctoral dissertation or some other research project concurrent with your degree to graduate.
e. Clinical Instructor/approved clinical instructor (CI/ACI; teaching/ mentoring/ supervising undergraduate athletic training students)

22. At your graduate institution, were you provided with an orientation when you frist assumed your graduate assistantship?
    a. Yes
    b. No
23. If answered yes to question 22 do you think the orientation that was provided by your graduate institution was satisfactory and provided you with the information that you need to make a successful transition to your graduate institution?
    a. Very much so
    b. Moderately so
    c. Somewhat
    d. Not at all
24. If answered no to question 22, do you believe that it would have been helpful in transitioning to your graduate institution if an orientation was provided?
    a. Very much so
    b. Moderately so
    c. Somewhat
    d. Not at all
25. In the past 3 months, was one or more of your athletic teams for which you were responsible for in season?
    a. Yes
    b. No
26. Is your graduate assistant position:
    a. Off-Site
    b. On-Site

ONLY FOR OFF-SITE GRADUATE ASSISTANTS

27. In what setting(s) do you primarily work?
    a. Middle School
    b. High School
    c. Private School (K-12)
    d. Jr. College
    e. Other college
    f. Clinic
    g. Hospital
    h. Other (specify)

28. Please list the teams that you are responsible for over the course of one academic year:

_____

29. What is the total amount of athletes/patients under your direct care over the course of one academic year? _____
30. If working at a school, does your school have a physician you can refer athletes too?
    a. Yes
    b. No

ONLY FOR ON-SITE GRADUATE ASSISTANTS

31. With what group(s) do you primarily work with (check all that apply)?
    a. Varsity athletics
    b. Club athletics
    c. Intramural athletics
    d. Other
32. Please list the teams that you are responsible for over the course of one academic year:

_____

33. What is the total amount of teams you are responsible for? _____
34. What is the total amount of athletes under your direct care over the course of one academic year? _____
35. How many days per week does your physician come to your school? _____

Appendix C

PERCIEVED STRESS SCALE

INSTRUCTIONS: The questions in this scale ask you about your feelings and thought during the PAST THREEE MONTHS (August, September, October) of your graduate assistantship. In each case, you will be asked to indicate your response by making the circle representing HOW OFTEN you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, do not try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

1. In the last 3 months, how often have you been upset because of something that happened unexpectedly?
   Never Almost Never Sometimes Fairly Often Very Often
2. In the last 3 months, how often have you felt that you were unable to control the important things I your life?
   Never Almost Never Sometimes Fairly Often Very Often
3. In the last 3 months, how often have you felt nervous and "stressed"?
   Never Almost Never Sometimes Fairly Often Very Often
4. In the last 3 months, how often have you dealt successfully with day to day problems and annoyances?
   Never Almost Never Sometimes Fairly Often Very Often
5. In the last 3 months, how often have you felt that you were effectively coping with important changes that were occurring in your life?
   Never Almost Never Sometimes Fairly Often Very Often
6. In the last 3 months, how often have you felt confident about your ability to handle your personal problems?
   Never Almost Never Sometimes Fairly Often Very Often
7. In the last 3 months, how often have you felt that things were going your way?
   Never Almost Never Sometimes Fairly Often Very Often
8. In the last 3 months, how often have you found that you could not cope with all the things that you had to do?
   Never Almost Never Sometimes Fairly Often Very Often
9. In the last 3 months, how often have you been able to control irritations in your life?
   Never Almost Never Sometimes Fairly Often Very Often
10. In the last 3 months, how often have you felt that you were on top of things?
    Never Almost Never Sometimes Fairly Often Very Often
11. In the last 3 months, how often have you been angered because of things that happened that were outside of your control?
    Never Almost Never Sometimes Fairly Often Very Often

12. In the last 3 months, how often have you found yourself thinking about things that you have to accomplish?

Never Almost Never Sometimes Fairly Often Very Often

13. In the last 3 months, how often have you been able to control the way you spend your time?

Never Almost Never Sometimes Fairly Often Very Often

14. In the last 3 months, how often have you felt difficulties were piling up so high that you could not overcome them?

Never Almost Never Sometimes Fairly Often Very Often

APPENDIX D

ANXIETY SURVEY

INSTRUCTIONS: The questions in this survey ask you about your feelings and thoughts during the PAST THREE MONTHS (August, September, October) of your graduate assistantship. Do not spend too much time on any one statement, but give the best answer which seems to describe your current situation. Mark the circle that corresponds to your answer. Please be as honest as possible.

Never Almost Never Sometimes Fairly Often Very Often.

1. I feel at ease when I am working at my graduate assistantship clinical site.
2. I feel upset when it is time for me to go to my clinical site.
3. I feel anxious when I attend graduate classes
4. I am presently worrying about possible emergency situations.
5. I feel anxious on game days.
6. I feel comfortable at my clinical site.
7. I feel self-confident in the decisions I make as an athletic trainer.
8. I feel nervous during sporting events.
9. I am regretful about taking the graduate position that I am in.
10. I am jittery before the start of my work day.
11. I feel "high-strung" after coming home from my clinical assignment.
12. I am relaxed at my clinical assignment.
13. I feel content with my clinical assignment.
14. I am confident in my school work.
15. I am worried about future injuries.
16. During a game I feel over-excited and "rattled".
17. Before or during an event it is hard for me to concentrate on the athletic event.
18. I feel joyful about my clinical assignment.
19. I feel pleasant in my athletic training room/clinic.
20. I often feel like crying when thinking of my clinical site.
21. I wish I was as happy with my job as other graduate assistant athletic trainers seem to be.
22. I am "calm, cool, and collected" at my clinical site.
23. I feel that difficulties in my clinical and coursework activities are piling up so that I cannot overcome them.
24. I worry too much over something that really does not matter.
25. I am happy with my graduate assistantship position.
26. Before or while I am covering an athletic event my muscles feel tight because I am nervous.
27. I am comfortable with my grade point average.
28. I worry that I will not be able to finish classwork on time.

29. I lack self-confidence in my athletic training abilities.
30. I feel secure in the position I currently hold.
31. I try to avoid facing a crisis or difficulty.
32. I worry that I will let others down, or perform badly during an athletic event.
33. I get in a state of tension or turmoil as I think over my recent concerns about athletic training.
34. I am tense during athletic events
35. I feel calm during athletic events

APPENDIX E

LETTER TO SURVEY PARTICIPANTS

Dear Fellow Athletic Trainer,

My name is Christine Mayoros and I am a graduate assistant athletic trainer at Michigan State University. I am writing to ask for your participation in research for my Master's thesis, entitled "Determining What Factors Cause Stress and Anxiety in First Year Graduate Assistant Athletic Training Students." This student survey is not approved or endorsed by the NATA. It is being sent to you because of NATA's commitment to athletic training education and research.

The survey in the link below is designed to determine what factors contribute to the stress and anxiety levels of first year graduate assistant athletic trainers. The survey will take approximately 20 minutes to complete. Participation is voluntary and you must be 18 years or older to participate in this research study. The current literature offers little investigation into this specific population of athletic trainers, so while you will not directly benefit from participation in this study, your participation may contribute to the understanding of the stressors placed upon graduate assistant athletic trainers.

Your confidentiality will be protected to the maximum extent allowable by law. Information gathered from this research will not be used to identify you in any way. Surveymonkey.com assigns a number to your response, so no identity information will be linked to your questionnaire. Data will only be accessed by the primary researcher (myself), three advisors, and the Michigan State University Institutional Review Board and will be kept under double lock and key for seven years. You may decline participation or withdraw at any time and you may also skip questions, all without penalty. There are no known risks inherent in participation.

If you have any concerns or questions about this research study, such as scientific issues, how to do any part of it, or to report an injury, please contact me, Christine Mayoros, at 105 IM Sports Circle, East Lansing, MI 48823, at (815) 207-0281, or at mayorosc@msu.edu. If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 207 Olds Hall, MSU, East Lansing, MI 48824.

I thank you in advance for your contribution to this research and for your willingness to share your experiences in hopes to better the lives of others that will follow you in this profession. Please click on the link below to proceed to the survey. Doing so will indicate your voluntary agreement to participate in this research. Please complete your survey no later than December 23rd, 2011.

Click link to enter survey: https://www.surveymonkey.com/s/FSJKBKF

Sincerely,

~ Christine Mayoros, ATC
Graduate Assistant Athletic Trainer
Michigan State University
105 IM Sports Circle
East Lansing, MI 48823
(815) 207-0281
mayorosc@msu.edu

Tracey Covassin, Ph.D., ATC
Undergraduate Athletic Training Program Director
Michigan State University
105 IM Sports Circle
East Lansing, MI 48823
(517) 353-2010
covassin@msu.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. The 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.

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