Graduate Assistant Athletic Trainer’s Workload and Its Effects on Burnout and Healthcare Quality

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CHAPTER ONE

Graduate Assistant Athletic Trainer’s Workload and its Effects on Burnout and Healthcare Quality

*Introduction*

Athletic trainers is a health care profession that involves more than taping ankles and standing on the sidelines giving water. Athletic trainers are often confused with personal trainers and strength and conditioning coaches. However an athletic trainers responsibilities include providing the highest level of medical care for patients under their supervision. Athletic trainers work in a variety of health care positions. Universities, secondary-schools, private companies and even the military employ athletic trainers.

In order to become a certified athletic trainer one must go through a two to three year Committee on Accreditation of Athletic Training Education (CAATE) approved program at a 4 year university. After graduation, students will take the Board of Certification test to become a certified athletic trainer REFERENCE. If one wants to move forward in the profession and continue to be an athletic trainer at the college level or higher they will apply for a graduate assistant position to pursue a graduate degree in an area of their choosing while working with athletics in the sports medicine department.

In the sports medicine department, athletic trainers will be responsible for providing a wide variety of medical services. These medical services such as wound-care, treatment and rehabilitation of chronic and acute injuries, providing sound medical advice come free to all patients under their direct care. A majority of the time trainers are available to the patients at their convenience. This saves the patient invaluable time and money. The costs of individual doctor visits for all of the sprains, strains, and illnesses to a patient would be far higher without the athletic trainer to mediate what conditions need to be seen by someone more certified (YOU GUYS ARE QUALIFIED???) .

An athletic trainer’s workload is often coupled with long hours and having few days off. Some athletic trainers can work anywhere from ten to fifteen hour days depending on the time of year. Because of the structure of an athletic trainers’ schedule, they often do not get much free time for leisure. Because of their lower ranking in the hierarchy of the sports medicine department, graduate assistant athletic trainers are left to open early, fill in for full-time staff as needed, and close late. This increase in work load from undergraduate to professional work can cause increased stress on many young professionals. Heavy workloads related to patient care and long hours can cause a large amount of stress to be placed on these Athletic Trainers.

In many cases stress can manifest itself as burnout. “*Burnout* is defined as a negative response to chronic stress in which a person often is exhausted emotionally and physically because of the demands placed on him or her.” (Mazerolle et al., 2012). The added stress caused by the increased workload from work responsibilities to academic course work may lead to burnout and a perceived decreased level of medical care.

Considering the above, it seems prudent to study this phenomenon of burnout and perception of care.

Problem Statement

The purpose of this observational study is to assess the graduate assistant athletic trainer’s degree of burnout and its effect on their perception of self-reported patient care.

*Independent Variables*

1. Workload
   1. Average hours worked per day
   2. Number of sports covered
   3. Number of athletes covered
2. Gender
3. Division

*Dependent Variables*

1. Measurement of burnout as scored by the Maslach Burnout Inventory
2. Selected variables of self-reported sub optimal healthcare quality practices
3. Selected variables of self-reported sub optimal healthcare quality attitudes

*Research Sub Problems*

1. What is athletic training?
2. What are the duties and roles of an athletic trainer?
3. What is the Maslach Burnout Inventory?
4. How are practices of self-reported sub optimal healthcare quality defined?
5. Selected variables of self-reported sub optimal healthcare quality attitudes
6. Why is this study needed?

*Statistical Sub-Problems*

1. What is the effect of a graduate assistant athletic trainer’s workload on burnout by gender?
2. What is the effect of a graduate assistant athletic trainer’s workload on burnout by division?
3. What is the effect of a graduate assistant athletic trainer’s workload on burnout by job position?
4. What is the effect of a graduate assistant athletic trainer’s workload on practices of self-reported sub-optimal healthcare quality by gender?
5. What is the effect of a graduate assistant athletic trainer’s workload on practices of self-reported sub-optimal healthcare quality by division?
6. What is the effect of a graduate assistant athletic trainer’s workload on attitudes of self-reported sub-optimal healthcare quality by gender?
7. What is the effect of a graduate assistant athletic trainer’s workload on attitudes of self-reported sub-optimal healthcare quality by division?
8. What is the effect of a graduate assistant athletic trainer’s workload on attitudes of self-reported sub-optimal healthcare quality by job position?
9. To what extent does burnout predict practices of self-reported sub-optimal healthcare quality?
10. To what extent does burnout predict attitudes of self-reported sub-optimal healthcare quality?

*Hypotheses*

1. No effect exists between a graduate assistant athletic trainer’s workload and burnout by gender.
2. No effect exists between a graduate assistant athletic trainer’s workload and burnout by division.
3. No effect exists between a graduate assistant athletic trainer’s workload and burnout by job position.
4. No effect exists between a graduate assistant athletic trainer’s workload and practices of self-reported sub-optimal healthcare quality by gender.
5. No effect exists between a graduate assistant athletic trainer’s workload and practices of self-reported sub-optimal healthcare quality by division.
6. No effect exists between a graduate assistant athletic trainer’s workload and practices of self-reported sub-optimal healthcare quality by job position.
7. No effect exists between a graduate assistant athletic trainer’s workload and attitudes of self-reported sub-optimal healthcare quality by gender.
8. No effect exists between a graduate assistant athletic trainer’s workload and attitudes of self-reported sub-optimal healthcare quality by division.
9. No effect exists between a graduate assistant athletic trainer’s workload and attitudes of self-reported sub-optimal healthcare quality by job position.
10. No prediction exists between burnout and practices of self-reported sub-optimal healthcare quality.
11. No prediction exists between burnout and attitudes of self-reported sub-optimal healthcare quality.

*Assumptions*

1. The graduate assistant athletic trainers in this study are certified athletic trainers.
2. The graduate assistant athletic trainers in this study work a normal schedule as the rest of their co-workers.
3. The Maslach Burnout Inventory is a valid and reliable instrument.
4. The graduate assistant athletic trainers in this study have a desire to work in the field of athletic training.
5. The sample size is representative of all employed graduate assistant athletic trainers.

*Limitations*

1. This study uses a questionnaire that has been based off of other studies.
2. This study has a negative connotation.
3. Motivation for participation is only provided by e-mail.

*Definition of Terms*

1. Burnout - fatigue, frustration, or apathy resulting from prolonged stress, overwork, or intense activity
2. National Athletic Trainers’ Association (NATA) - The National Athletic Trainers’ Association (NATA) is the professional membership association for certified athletic trainers and others who support the athletic training profession.

*Need for Study*

How a graduate assistant athletic trainer’s workload affects their feeling of burnout and self-reported sub-optimal healthcare practices and attitudes is important to the profession of athletic training.

As healthcare providers, the care of our patients, being athletes in most cases, should be our top priority. However, this may not always happen due to high stress levels and the workload of athletic trainers. These two primary causes of burnout, stress and workload, often create an environment in which athletic trainers may decrease their workload in order to keep from progressing to a greater degree of burnout. Burnout has even been shown to lead to career-choice regret within medical professions (Lemkau, J., Rafferty, J., & Gordon, Jr., R., 1994). Researchers have shown that a large percentage of athletic trainers suffer from burnout during their career (Hendrix, Acevedo, & Hebert, 2000; Stilger, Etzel, & Lantz, 2001). Yet, little research examines how the various areas of an athletic trainer’s workload and burnout correlate to the quality of healthcare given to the athletes.

Athletic trainers have slowly been recognized as allied healthcare professionals who provide a legitimate medical service to athletes (Foster, D. T., Yesalis, C. E., Ferguson, K. J., & Albright, J. P., 1989; Clarke, 1982). However, this recognition does not necessarily benefit society to have a group suffering burnout and providing healthcare. Therefore, by increasing the recognition of the effects burnout has on athletic trainers rather than just the causations, more steps can be taken to prevent the occurrence of burnout. Therefore, those that use the services of athletic trainers can safely benefit from the many talents they have to offer.

Athletic trainers, athletes, and athletic departments would benefit from this study. By examining the potential causes and effects of burnout on the quality of healthcare athletic trainers give to athletes, the National Athletic Trainers’ Association and athletic directors could take steps to help decrease the workload of graduate assistant athletic trainers. If a correlation exists between a high workload, burnout and healthcare quality, employers of graduate assistant athletic trainers could examine their treatment towards and practices of expecting graduate assistants to work long hours and cover such large groups are detrimental to their employees as well as the athletes. This recognition by the NATA and employers would hopefully decrease the stress level and ultimately the burnout rate among graduate assistant athletic trainers as well as increase the quality of healthcare given to the athletes

CHAPTER TWO

Literature Review

*Athletic Training Today*

The purpose of this survey design study is to assess the effect of a graduate assistant athletic trainers’ workload on burnout and practices and attitudes of self-reported sub-optimal healthcare quality.

Athletic training is practiced by certified athletic trainers, health care professionals who collaborate with physicians to optimize activity and participation of patients and clients.  Athletic training encompasses the prevention, diagnosis, and intervention of emergency, acute, and chronic medical conditions involving impairment, functional limitations, and disabilities *(Athletic Training Terminology, 2009)*. Typically athletic trainers treat recreational, amateur, and professional athletes. Individuals who have suffered musculoskeletal injuries or those delegated by a physician are also seen by athletic trainers *(Athletic Training Terminology, 2009)*.

Athletic trainers work in many different settings such as athletic training facilities, schools (K-12, colleges, universities) amateur, professional and Olympic sports venues, clinics, hospitals, physician offices, community facilities, and workplaces (commercial and government) to name a few. Athletic trainers have continued to expand their places of employment in non-traditional areas such as the armed forces, police departments, and rodeo (Kimmel Jr, 2005). No longer are athletic trainers limited to just the “typical” college and professional arenas after graduating from college that they were originally noted for (Denegar, 1997).

Athletic trainers work under the direction of a physician as well as deliver rehabilitative services under the guidelines of a physician. Yet, the athletic trainer still remains autonomous from their directing physician in most places of employment due to working under the direction of the physician rather than the supervision of the physician. The most important difference between direction and supervision is that supervision may require the on-site physical presence of the physician and that the physician examines each and every patient treated by an athletic trainer.  Direction, on the other hand, requires contact and interaction (usually done through electronic methods such as phone and e-mail), but not necessarily physical presence. Guidelines are general directions and descriptions that lead to the final outcome, thereby allowing the athletic trainer to rely on clinical decision making that they have gained through their education to construct the rehabilitation protocol. Protocols are rigid step-by-step instructions that are common in technical fields and do not allow flexibility and/or clinical decision making (Athletic Training Terminology, 2009).

Athletic trainers are proficient in 5 domains of sports medicine. These “domains” are prevention; clinical evaluation and diagnosis; immediate care; treatment, rehabilitation, and reconditioning; organization and administration; and professional responsibility (Board of Certification, 2004) Prevention is defined as the ability to discern, evaluate, and communicate risk associated with participation in athletic and physical activity. There are four areas of evaluation for the athletic trainer. These areas are pre-participation evaluation, on-the-field evaluation for immediate care, the off-the-field evaluation for a more detailed examination, and progress evaluations. Immediate care is the ability to provide direct services rendered by members of health professions for the benefit of a patient. In the athletic training profession this focus is on the knowledge and skills to provide standard immediate care procedures used in emergency situations. In caring for an athlete through treatment, rehabilitation, and rehabilitation and/or reconditioning, the athletic trainer determines appropriate strategies consistent with the clinical impression made during the clinical evaluation process and by considering age-specific criteria and psychosocial, community, family, and healthcare support system influences. Organization and administration is defined as a series of plans, policies, and procedures by which athletic trainers organize the athletic training program to ensure responsive and efficient operations, in accordance with the BOC *Standards of Practice* and NATA *Code of Ethics*. Professional responsibility is managed in two ways. First, the athletic trainer is held to requirements for ethical practice and continuing education by the BOC. Secondly, is the requirement of annual recertification by the athletic trainer.

### Job Stress

Pressure has increased on athletic trainers working in collegiate settings to provide medical services to athletes while balancing management issues related to under-staffed facilities, inadequate resources, longer competitive seasons, and increased risk of litigation. This increased pressure often leads to higher stress levels (Henning & Weidner, 2008; Brumels & Beach, 2008; Pitney, 2006). For example, data from 2003 showed an average ratio of 80 athletes to one athletic trainer, which is likely greater than the student-to-professor or athlete-to-coach ratio at many of the same institutions. (Kania et al., 2009) Job satisfaction also plays a role in an athletic trainer’s overall psychological wellbeing. There are many influences upon whether athletic trainers are satisfied with their jobs. Many athletic trainers, especially graduate assistants, make very little as they begin in the profession. Other influences of job satisfaction include who an athletic trainer works with, their job title, how long they have worked in the profession, and level of education (Barrett, Gillentine, Lamberth, & Daughtrey, 2002). Graduate assistants may also be influenced by degree of study, number of credit hours, or free time to focus on their education.

This sense of increased pressure and time commitment often begins to take its effects even before an athletic trainer enters the profession. Athletic training students are faced with a different method of entering into their profession than many other allied health professions. An athletic training student must be admitted to an accredited athletic training education program in order to become an athletic trainer. While in the program the students will begin their “residency” as soon as they are accepted. Therefore, athletic training students begin learning and “practicing” the profession from day one. The pressure further increases once a student receives certification and attends graduate school. Now, they are tasked with the health-care of an individual and the litigation associated with the profession as well as maintaining a specific grade point average for their degree.

Thousands of student athletic trainers provide care to student athletes on a daily basis in various athletic training curriculum and internship sites across the U.S. Recent data indicated that more than 1000 students were enrolled in 121 NATA-approved or Commission on Accreditation of Allied Health Education Programs (CAAHEP)-accredited undergraduate curriculums and hundred more in non-accredited programs. (Stilger et al., 2001) These students are required to invest a considerable amount of time in an athletic training environment while in athletic training education programs. These hours in the athletic training environment are done in addition to a normal collegiate workload and time expectation. These students are also expected to learn how to be an athletic trainer simply by being exposed to the atmosphere. This means athletic training students are expected to learn how to make both moral and ethical decisions and how to run an athletic training room from their experiences. Often times, such experiences place students in and around political situations that occur in collegiate athletics and as well as decisive healthcare situations.

All of this exposure an athletic training student may be exposed to create a large amount of stress upon the students before they have even entered the profession as a certified athletic trainer. Stilger et al., 2001 found that while student athletic trainers were faced with many of the same issues as the everyday college student (academics, financial, social, family, and other stressful life events), the additional responsibilities associated with the athletic training student lifestyle (travel, maintaining high academic standards, dealing with athletes and coaches) may place them at risk to experience physical and psychological problems. As students are in the athletic training curriculum for a longer period of time, their sense of burnout tends to increase. (Riter, Kaiser, Hopkins, Pennington, Chamberlin, & Eggett, 2008) This increase can be associated to the previous findings by Stilger et al. and the fact that these students have experienced these stressors with very little rewards by the time they are graduating. Riter et al. also found a difference in burnout scores based upon students’ gender and relationship status.

Another study by Reed and Giacobbi, 2004 interviewed six graduate assistant athletic training students at an NCAA Division I university to assess their stress levels and coping responses. After analyzing the interviews, the authors found six general dimensions of stress that existed among the graduate assistant athletic training students. These dimensions of stress were athletic training duties (e.g., supervisory role, injury care or prevention, documentation, communicating with others), comparing of job duties, responsibilities as student (e.g., assignments, coursework), time management (e.g., athletic training, school work, daily living), social evaluation (e.g., demonstration of ability, labeled as a student, self-presentation, pleasing others), and future concerns. Many different coping responses were found from the interviews. These responses were placed into main categories that included planning, social support, adjusting to job responsibilities, positive evaluations, emotional support, humor, wishful thinking, religion, mental and behavioral disengagement, and activities outside of profession (Reed & Giacobbi, 2004).

Reed & Giacobbi, 2004 demonstrates that there are more specific causes to athletic trainers’ stress levels than just the generic long hours and large number of patients to cover as well as how an athletic trainer’s ability to cope with daily stressors can contribute or prevent burnout. Previous studies have shown that coping responses were a large preventative measure to burnout in the human services (Shinn, Rosario, Morch, & Chestnut, 1984). While many different coping strategies were found, one common in all professions is exercising. Many believe that exercising will help reduce stress. Yet, many athletic trainers do not exercise outside of their normal duties at work. Cuppett and Latin found that on average women exercise more often than men in the athletic training profession (Cuppett & Latin, 2002). The authors also found that athletic trainers who work in a clinic exercise more often than their counterparts who work in high schools and colleges. An interesting finding in the field of health and burnout is that while exercising improves health and helps prevent burnout, burnout does not necessarily negatively affect a person’s health (Maslach, 2001).

### Burnout

Burnout has been defined as a reaction to chronic stress that involves negative interactions between environmental and personal characteristics. Burnout has also been characterized as a chronic condition that develops when one is working too hard for too long in a high pressure situation (Hendrix et al., 2000). Burnout is a psychological syndrome of emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA). More specifically, EE is defined as a period during which "emotional resources are depleted, and workers feel that they are no longer able to give of themselves at a psychological level"; DP is a period during which an individual harbors "negative, cynical attitudes or feelings about one's clients"; and reduced PA is a "tendency to evaluate oneself negatively, particularly with regard to one's work with clients" (Maslach, Jackson, Leiter, & Schaufeli, 1996). The development or exacerbation of burnout may result in many symptoms at the physiologic (e.g., headaches, difficulty sleeping, poor appetite), psychological (e.g., increased negative self-talk, depression, difficulty in interpersonal relationships), and/or behavioral (e.g., diminished care, increased absenteeism, attrition) levels. These symptoms may impair the health care professional and lead to diminished care for the patient. (Kania et al., 2009)

Kania et al., 2009 used the MBI-HSS to assess the 3 subcategories of burnout among athletic trainers at NCAA institutions in order to measure the level of perceived burnout as well as find which personal and environmental characteristics best predict burnout. The authors found that the athletic trainers in their study experienced low to average levels of burnout. By definition, high burnout is characterized by high EE, high DP, and low PA; average burnout is characterized by average EE, DP, and PA; and low burnout is characterized by low EE, low DP, and high PA.

Using these definitions, only 66 (32%) athletic trainers in Kania et al.’s study could be labeled as experiencing high, average, or low burnout. The remaining 140 (68%) athletic trainers had various levels of EE, DP, and PA, which could not be categorized into high, average, or low burnout per MBI-HSS standards (Kania et al., 2009). These findings contradict previous studies of burnout among athletic trainers. One theory for the lower rates of burnout was due to the volunteer nature of the study as well as the predictability of the survey’s nature.

### Effects of Burnout

While many studies have been done to assess burnout in athletic training, no study has taken that information and assessed if there are any repercussions to the graduate assistant athletic trainer’s patient population. In a study by Shanfelt, Bradley, Wipf, & Back, (2002), the authors evaluated the prevalence of burnout among internal medicine residents in a single university based program and evaluated the relationship of burnout and self-reported patient care practices and attitudes. The statements used in the authors’ survey were developed on the basis of hypothesized effects of burnout on patient care. In this report, the authors describe these items collectively as suboptimal patient care practices and attitudes; however, the questionnaire did not use this wording or explicitly indicate that these aspects of patient care were considered undesirable. The survey instructions asked residents to "rate how frequently you found yourself exhibiting the following attitudes or behaviors for any reason (time constraints, feeling rushed, need to leave hospital, etc.)." The response options were "never," "once," "several times per year," "monthly," and "weekly."

Residents who met the criteria for burnout were significantly more likely to report engaging in six of the eight suboptimal patient care practices and attitudes at least several times per year compared with residents who did not meet the criteria for burnout. Residents who met the criteria for burnout were also significantly more likely to report suboptimal patient care practices at least monthly. When multivariate logistic regression was used to evaluate the independent relationship between burnout and self-reported suboptimal patient care practices, burnout best predicted self-report of suboptimal patient care practices at least monthly. These findings show that there may also be a correlation to burnout and a decreased quality of patient care among athletic trainers. Therefore, a questionnaire designed to assess the perceived quality of care practices and attitudes of athletic trainers along with their level of burnout using the Maslach Burnout Inventory – Human Services Survey (MBI-HSS) may be more useful.

### The Maslach Burnout Inventory

The Maslach Burnout Inventory (MBI) is the overall name for three versions of a questionnaire intended to measure burnout. The original 22-item Human Services Survey (HSS) is designed for human services staff members required to work directly with clients, who are referred to as recipients. The Educators Survey (ES) is the same as the HSS except that the word students is used rather than recipients. For these two versions, the authors define burnout as 'a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity' (Maslach et al., 1996). The third, most recently developed version is the 16-item General Survey (GS), for which burnout is defined as 'a state of exhaustion in which one is cynical about the value of one's occupation and doubtful of one's ability to perform' (Maslach et al., 1996). The reliability and validity of the MBI has been shown to be accurate over time as it has been used in hundreds of studies since its development.

Many different aspects of a person’s work environment will affect their level of or even existence of burnout. Many believe that being a healthcare worker is a high cause of burnout is one such aspect (Kalliath, O'Driscoll, Gillespie, & Bluedorn, 2000; Maslach, 2003; Patrick, 1979). Yet, while the theory that just having a certain job can lead to burnout is still up for debate, many other demographic variables have been found to lead to burnout over years of research. One such variable is gender. Gender differences in burnout scores have been found in many studies (Maslach et al., 1996; Riter et al., 2008; Ptacek, Smith, & Dodge, 1994; Walter et al., 2009; Kelley, 1994; Capel, 1986; Giacobbi Jr, 2009). The amount of time spent at a job has also become an important factor when assessing burnout (Hendrix et al., 2000; Walter et al., 2009). Therefore, a study is needed to determine if an graduate assistant athletic trainer’s job creates a sense of burnout as well if there is an effect on the quality of healthcare given to the athletes.

CHAPTER THREE

Methodology

The purpose of this observational study is to assess the graduate assistant athletic trainer’s degree of burnout and its effect on their perception of self-reported patient care.

Participants

A random sample of certified graduate assistant athletic trainers were selected for this study. These graduate assistants were selected on the criteria of being enrolled in a collegiate setting, defined as either an NAIA institution, NJCAA institution, or NCAA institution (DIII – DI). The inventory was sent to the selected individuals by e-mail, through the NATA, with a link to an electronic version of the inventory. The e-mail addresses were obtained through permission from the National Athletic Trainers’ Association (NATA). An e-mail letter was sent describing the researcher and the purpose of the study. This e-mail also informed the participants that participation in this study will be voluntary and that this study is not endorsed by NATA. I THOUGHT YOU GUYS WERE GOING TO GET A DIFFERENT POPOULATION?

Human Subjects

A Human Subjects Review Form was completed and submitted to the Institutional Review Board of the University of Idaho (See Appendix A). Human Subject Informed Consent was distributed to all participants prior to data collection in the consent letter (See Appendix B). Participants were informed that they can decide to not complete the study at any time. All information gathered by participants from the survey was anonymous as well as stored in a password secured file on our personal computers.

Instrumentation

An inventory was used for data collection. This inventory contains questions to gain demographic data, the Maslach Burnout Inventory (MBI) in order to assess burnout, and a series of questions to assess practices and attitudes of self-reported sub-optimal healthcare. The demographic questions was used to gather data on gender, age, years of certification, job position, division, average hours worked per day, number of sports covered, and number of athletes covered. The questions asking the average hours worked per day, number of sports covered, and number of athletes covered was scored between a value of 3 and 12 in order to determine what the participant’s workload level is.

The MBI is a 22 item questionnaire that assesses burnout in an individual. The respondent is to rate each item on a 7-point scale ranging from Never to Every day, to describe the frequency with which the respondent experiences the feeling described in the item. Each version produces three scores, which are collectively thought to indicate the extent of burnout. For the Human Services Survey (HSS) and Educators Survey (ES), the scores are the summed ratings for three aspects: Emotional Exhaustion (nine items reflecting fatigue or stress), Depersonalization (five items referring to feelings of callousness or indifference in regard to recipients or students), and Personal Accomplishment (eight items about feelings of enthusiasm and effectiveness in working with the people) (Maslach et al., 1996)

The selected variables of self-reported suboptimal healthcare quality practices and attitudes was defined using 13 questions asking the participant how often he/she has practiced each of the following items using a 5-point Likert scale ranging from Never to Weekly. Questions 1-8 will assess how often the participants perceive to do certain healthcare practices in athletic training. Questions 9-13 will assess how often the participants perceive to have certain attitudes while practicing athletic training. The questions for this portion of the inventory were developed using a similar inventory in a study of healthcare quality practices and attitudes in a medical residency program Shanafelt et al., 2002.

Procedure

The inventory was sent to graduate assistant athletic trainers in March by e-mail. A link to the website tool Surveygizmo was sent in order to make filling out the survey easier for participants. This eliminated the need to manually fill out and send back any documents.

After obtaining the data at the end of the month long period, the inventories was scored and analyzed. Any inventories that are considered invalid for the study were to be excluded from the data analysesand no data from any part of the inventory was saved. An invalid inventory was any inventory that is too incomplete to use for data analyses. Partially completed inventories may be used if enough data for analysis of all independent variables (workload, gender, position, and division) and its effects on at least one dependent variable can be found (burnout, practices, or attitudes).

Design and Analysis

The study is a survey design study that used the Statistical Package for the Social Sciences-17 (SPSS) to provide descriptive statistics to evaluate the answers given by participants on the Maslach Burnout Inventory (MBI) and the Healthcare Quality Questionnaire. The participants were selected by random sampling which was performed by the NATA. All inventories that meet the criteria for use (enough data for analysis of all independent variables and its effects on at least one dependent variable) were used. A graduate assistant athletic trainer’s workload and its effect on burnout and healthcare quality were examined using ANOVA and correlation procedures. Alpha was set to P<.05. The independent variables are gender, division, and job position. The dependent variables are the level of burnout according to the MBI and the level of healthcare quality according to the Healthcare Quality questionnaire.

The inventory consists of a set of demographic questions that will ask the participants their gender, age, years of certification, job position, division they are employed in, average hours worked per day, number of sports covered, and number of athletes covered. The inventory also contains two sets of Likert scaled questionnaires. The first instrument is a 22-item questionnaire that assesses the participants’ level of burnout on a 7-point scale ranging from Never to Every day, to describe the frequency with which the respondent experiences the feeling described in the item. The second instrument is a 13-item questionnaire that examines the participant’s practices and attitudes of self-reported sub-optimal healthcare quality on a 5-point Likert scale. The level of burnout and practices and attitudes scores was measured by gender, job position, and division. The level of burnout and practices and attitudes scores will also be compared to see if there is a predictor between the scores.

**Credit Mike**

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