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RISK MANAGEMENT PRACTICES OF COLLEGIATE ATHLETIC TRAINERS: AN EXAMINATION OF POLICIES AND PROCEDURES

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Dissertation submitted to the Faculty of the
Marshall University Graduate College
in partial fulfillment of the
requirements for the degree of

Doctor of Education
in
Educational Leadership

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Huntington, West Virginia, 2007

Keywords: risk management, policies and procedures, athletic training, collegiate athletic trainers

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ABSTRACT

Risk Management Practices of Collegiate Athletic Trainers: An Examination of Policies and Procedures

The purpose of this study was to identify and describe (a) risk management practices of collegiate athletic trainers, (b) perceived risk management practices important to the collegiate athletic trainer, (c) risk management responsibilities of the head athletic trainer, and (d) resources utilized by collegiate athletic trainers in the development of a risk management plan. Risk management practices were divided into 13 categories: (a) periodic review, (b) consultation, (c) periodic in-services of policies, (d) periodic in-services for personnel, (e) methods for insuring against loss, (f) participation and consent of athletes, (g) emergencies, (h) care and treatment of injuries and conditions, (i) safety inspection and investigation, (j) supervision, (k) elimination of potential risk, (l) goals and objectives, and (m) administrative responsibilities. Participants were asked to identify the extent to which risk management practices were in writing and operation. Potential resources were separated into six categories: professional position statements, standards of practice, federal regulations, case law, state licensure, and athletic organization medical handbooks.

A random sample of 444 (n=444) college athletic trainers was obtained from a population of 5,157 certified members of the National Athletic Trainers' Association who identified an employment setting of university and college. 229 surveys were returned for s response rate of 51%. The study utilized descriptive statistics (frequencies, percentages, means, and standard deviation) and Spearman Rho correlation.

Findings suggest collegiate athletic trainers perceive all 13 categories to be important or very important risk management practices for inclusion in a policy and procedure manual. The extent to which athletic trainers engage in risk management practices in written and operation use is inconsistent. Head athletic trainers typically serve as the risk manager and are responsible for creating and implementing the policies and procedures. Utilization of professional position statements occurs more frequently than other available resources, including federal laws and professional standards of practice. College athletic trainers indicate a desire for national standards on policy and procedure development but are not as inclined to have an external accrediting organization regulate the operation of the athletic training facility.

DEDICATION

The culmination the doctoral degree is dedicated to the women in my family who have come before me – Patricia, Mabel, Maggi Ruth, Melba, and my mother – Nancy, and the men who loved them and supported their journey – Len, Gordon, and my father - Jim. They have laid the foundation and paved the way for me – and all women. May I pass this gift on to my children, Alex and J.D., with the love and support of my husband Steve.

ACKNOWLEDGMENTS

Numerous individuals have given of themselves at various times throughout the process of earning my doctoral degree. I am truly touched by the generosity, guidance, selflessness, and love that each of you have bestowed upon me.

My children, J.D. and Alexandra, have provided me with joy and laughter, especially when you struggle to understand while all of my hard work has *only* resulted in five chapters. My husband, Steve, has demonstrated unselfish love and support by moving to a new location for a new beginning in our lives together.

My committee played a significant role in my success through their guidance, knowledge, and expertise. Their encouragement and expectations were perfectly timed to assist me in meeting goals and deadlines – as a student and a person. I specifically appreciate: Dr. Mike Cunningham, my committee chair, for allowing me to embrace the big picture – one small piece at a time; Dr. Teresa Eagle, my committee member who offered a perspective from the outside, which inevitably strengthened my work; Dr. Marty Spiker, my committee member who provided a calm balance and perspective of my doctoral work, coupled with motherhood and career; and Dr. Ronda Sturgill, my committee member who provided insight into a profession we are so passionate about. My sincerest thank you to each of you!

My friend and colleague, Dr Valerie Herzog, who paved the way for other athletic trainers like myself. We spent many long hours and late nights across three time zones in discussion, and each conversation made me a better person, friend, educator, and leader.

There are many others who have offered support in various ways and while there is not room to explain why or how, I acknowledge them in name: Monica, Carol, Sherri, Marsha, Bren, Dennis, Curt, Janet, Joan, Laura, Amy and Marc, Hallie, Ed, Jack and Chris, Deb, Judi and Steve, Susan and Brian, Joe, Bob, Alicia and Jason, Beth and Michael, Suzanne and Bob, Mary and Greg, Marta and Joe, April, Keith, Tim, and Mary.

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CHAPTER ONE: INTRODUCTION

Risk management is a management style utilized by business, education, athletics, entertainment, and healthcare organizations to contain risk and includes the processes of analysis, implementation, and management of risk (Page, 2002). While this broad view of risk management provides a framework for understanding its nature, the uniqueness of each profession actually results in a variety of written definitions. Spengler, Connaughton, and Pittman (2006) defined risk management as "reducing or eliminating the risk of injury and death and potential subsequent liability that comes about through involvement with sport and recreation programs and services" (p. 2). Carpenter (1995) defined risk management as "an integrated strategy for both conducting safe, equitable programs and reducing the potential for loss arising from successful legal claims against the program, its individual employees, and administrators" (p. 117). Cotton, Wolohan, and Wilde (2001) defined risk management as more than safety and prevention, but "an organized plan by which a recreation or sport business can manage and control both the programmatic risks and the financial risks facing the organization…not only *what to do* to control risks, but also involves *why to do it*" (p. 263). While the written definition varies, consensus can be found in its overarching areas of identification, implementation, and management (Carpenter, 1995; Gallup, 1995; Rankin & Ingersoll, 2001).

Within the healthcare provider genre, collegiate athletic training is unique because of its setting within academia and limited oversight by accrediting agencies. This uniqueness and a paucity of research in the field provide the impetus for this study of the risk management practices within collegiate athletic training practice.

Background

The health care field is comprised of medical and allied health professionals with formal education and training in varied aspects of medicine. Employment and practice settings for health care providers are diverse, but the more common facilities include hospitals, rehabilitation centers, therapy clinics, nursing homes, and private practice. Healthcare providers and their respective practice settings are regulated by law, facility accreditation, and profession specific standards of practice.

Healthcare Law

Healthcare law is constantly evolving to reflect the changes and shifts in society (Aiken, 2002). Important parts of healthcare law are the state practice acts, a form of statutory law, which provide and govern specific healthcare professions. These practice acts vary from state to state and provide the framework within which a healthcare professional can practice his/her knowledge and training. Health care professionals have a duty to the patient to provide a standard of care. This standard of care must be provided at the level of an ordinary, reasonable, and prudent person under the same or similar circumstances (Jones, 1999; Osborne, 2001; West & Ciccolella, 2004).

Facility Accreditation

Additionally, the facilities where healthcare professionals work are often accredited by designated accrediting bodies, such as the Commission on Accreditation of Rehabilitation Facilities (CARF) and Joint Commission on Accreditation of Healthcare Organizations (JCAHO). CARF accredits facilities offering rehabilitative services, seeking to improve the quality of care to the patient. JCAHO accredits more than 14,000

health care organizations and programs in the United States. As the largest accrediting and standard-setting body in health care, JCAHO's mission is to improve the safety and quality of care provided to the public (Joint Commission on Accreditation of Healthcare Organizations, n.d.a; Prentice, 2006).

Profession Specific Standards of Practice

Further structure for healthcare professionals is provided through their respective professional bodies, such as the American Nurses Association (ANA), the National Athletic Trainers Association (NATA), the American Physical Therapy Association (APTA) or the American Occupational Therapy Association (AOTA). These organizations provide their affiliates and members with standards of professional practice and position statements (American Physical Therapy Association, n.d.; Board of Certification, n.d.c.; American Occupational Therapy Association, n.d.).

Tort Law and Other Legal Considerations for Standards of Practice

Healthcare providers and administrators are faced with the various imposed external requirements and the litigious nature of our current society. The frequency of lawsuits against physicians and healthcare providers has been increasing, along with the severity of damages awarded (Gallup, 1995). The most common complaint filed is negligence, often called medical malpractice (Gallup, 1995). In the health care environment, guidance on risk management and the standard of care is provided through a risk management department or a facility manager. Healthcare administrators hire risk managers to analyze the risk and understand the framework of the law, external agencies, and professional organizations. A risk manager is then given the authority to develop and

implement the risk management plan to facilitate structure and uniformity within the organization (American Society for Healthcare Risk Management, 2005).

A risk manager is ultimately responsible for this implementation process, with the results often published as policies and procedures. A policy and procedure manual becomes a written form utilized as a risk management tool. A policy creates an expectation or guide for an action whereas a procedure is the method or instructions to carry out the policy (Page, 2002). Once created the risk manager must maintain and review the plan, and implement on-going training for employees.

The Athletic Trainer as a Professional Healthcare Provider

Athletic trainers are credentialed individuals specializing in injury prevention, assessment, treatment, and rehabilitation and are recognized by the American Medical Association as healthcare providers (Prentice, 2003). Employment and practice settings for athletic trainers include, but are not limited to, colleges, high schools, hospitals, rehabilitation centers, industrial rehabilitation, and therapy clinics. (Anderson, Hall, & Martin, 2004; Prentice, 2003). When employed by a healthcare facility, such as a hospital, rehabilitation center, or therapy clinic, the athletic trainer is working in an environment centered on healthcare and the respective standards of practice and healthcare accrediting agencies. Risk management practices are already in place and maintained by a risk manger.

Collegiate Athletic Training

Athletic trainers employed by a college are part of an educational and athletic environment, not a healthcare environment. The healthcare facility is known as the

athletic training room and is often housed within the athletic department or program. Unlike traditional healthcare facilities, only 61.2% of institutions have a risk manager and only 24.5% have a risk manager in athletics (Bodey & Moiseichik, 1999). The responsibility to analyze, identify, and manage risk is then borne by the athletic trainer employed by the college.

"As a general rule, an institution must use reasonable care in conducting its intercollegiate athletics program to prevent foreseeable harm to its student-athletes" (Mitten, 2002; http://www.ncaa.org/news/2000 /20000828/comment.html). Failure to conform to a standard of care leaves the patient at risk of harm and the athletic trainer liable for his actions, or lack of actions. The liability carries over to the intercollegiate athletics program and the university. The decision of *Searles v. Trustees of St. Joseph's College* (1997) reaffirmed the duty of a collegiate athletic trainer to conform to a standard of care.

One method an athletic trainer can utilize to manage risk and establish a standard of care in a collegiate setting is a policy and procedure manual. The policy and procedure manual provides a decision-maker, in this case the athletic trainer, with guidelines and boundaries with which to make decisions (Page, 2002). A well-written policy and procedure manual can allow a department to prepare for events in advance and eliminate trial and error decision-making. Risk management practices utilized in the collegiate athletic training room should be extrapolated from case law, standards of professional practice, position statements, and federal and state statutes and is generally outlined in an institutional athletic training policy and procedure manual (Ray, 2000; Selby, Carroll, Carter, Fabinea-Abney, & Kelly, 1992).

An examination of current practices and perceptions of athletic trainers related to risk management can provide valuable information for determining the next step of professional development. Current research is limited to specific sections of risk management in athletic training. In 1989, Leverenz examined case law in relation to curriculum development of athletic training education programs. A study by Herbert (1993) and a nine year follow-up study by Kahanov, Furst, Johnson, and Roberts (2003) examined compliance with federal drug regulation laws. In 2001, Mickle reviewed case law as a means to develop policies and procedures. Petty (2003) examined emergency policies and procedures in the collegiate setting, while Slack's research (2004) examined the correlation of professional characteristics of athletic trainers to health care practices in the collegiate athletic training environment. These studies examined isolated areas of risk management in specific sections of policy and procedure in athletic training rooms. Other studies have examined risk management behaviors of coaches and athletic programs (Anderson & Gray, 1994; Brown & Sawyer, 1998; Gray & Crowell, 1993; Gray & McKinstrey, 1994; Gray & Parks, 1991; Hall & Kanoy, 1993).

The profession of athletic training has elements of risk management similar to other health care professions. At the same time, the profession is still aligned with the collegiate athletic environment and more often associated as a recreational or athletic facility within a university or college. The profession would benefit from a comprehensive examination of existing risk management practices of athletic trainers in the collegiate setting to identify current trends and establish a foundation to move the profession forward. The information will allow the profession of athletic training to begin examining the similarities and differences in comparison with other health care

professions and organizations. By identifying any weaknesses the profession can provide specific risk management standards that will help move the profession towards compliance with the recognized requirements of other healthcare professions and facilities.

Statement of the Problem

The collegiate athletic trainer has limited guidance and training in risk management and the development of written policies and procedures from within the profession. A clearinghouse does not exist that provides best practices in risk management or policy and procedure development for the collegiate athletic trainer. In addition, there is no accrediting body with established standards governing collegiate athletic training facilities, as there are for other health care facilities, such as the JCAHO or CARF.

Currently, no research in the field of athletic training exists that examines athletic training risk management practices in its entirety. To further enhance the knowledge and practice of athletic trainers, it is essential to examine, evaluate, and describe the existing risk management practices of athletic trainers in collegiate athletic training facilities as a means to manage risk and provide a consistent standard of care across facilities. The profession needs a comprehensive examination of existing risk management practices in the collegiate setting to identify current trends and establish a foundation to move the profession forward.

Purpose of the Study

The purpose of this study was to identify and describe (a) risk management practices of collegiate athletic trainers, (b) perceived risk management practices important to the collegiate athletic trainer, (c) risk management responsibilities of the head athletic trainer, and (d) resources utilized by collegiate athletic trainers in the development of a risk management plan. This information establishes a baseline of current risk management practices in the collegiate athletic training setting for the profession of athletic training. The results of the study provide the foundation for identifying best practices in risk management, expanding the knowledge of practicing athletic trainers, and developing readily available resources in risk management. Therefore, this study sought to identify current risk management practices and perceptions of the collegiate athletic trainer.

Research questions

This study sought to answer the following questions related to risk management practices and policy and procedure development:

1. To what extent do collegiate athletic training departments engage in risk management practices?
2. What do collegiate athletic trainers perceive to be the important risk management practices to be included in a risk management plan covered in collegiate athletic training policy and procedure manuals?
3. To what extent do collegiate athletic training policy and procedure manuals address important risk management topics?

4. To what extent are head athletic trainers responsible for the development, implementation, and management of the risk management practices for the collegiate athletic training room?
5. What are the types of resources collegiate athletic training departments utilize in developing policies and procedures?

Significance of the Study

This is an initial study to examine the comprehensive risk management practices of athletic trainers in the collegiate setting. The results of this study provide important risk management information for the athletic training profession as healthcare providers.

Results of the study could contribute to the future development of best practices in risk management for collegiate athletic trainers. The identification of best practices in the area of risk management could provide a valuable resource for the athletic trainer. Resources could be collected and offered through a clearinghouse.

This study was significant in that it could initiate the exploration of a governing body for collegiate athletic training rooms. While additional administrative responsibility is not often looked upon favorably, the athletic trainer would have an organization supporting the proper standard of care for the facility, which could enhance equipment, facility size, and possibly personnel numbers. The governing body could serve as an educational and support tool for university administrators to understand the health care responsibilities of athletic trainers and risk associated with collegiate athletics. The study could be the foundation for aligning risk management practices of collegiate athletic trainers with other healthcare professions and facilities.

This study could also be significant in the undergraduate education of future athletic trainers. The information garnered from this study could influence changes to the educational competencies in the realm of health care administration.

Limitations

While this study examined the risk management practices of collegiate athletic trainers, it did not examine the depth or specificity of the content in the policy and procedure manual. This study did not take into account the variations within each policy and procedure manual as a result of state or local rules and regulations, or institutional autonomy. The instrument format was adapted from the survey instrument utilized by Fleitz-Bosco (1999) and Styles (2002); thus, the validity and reliability were established for generalizability of the results. The survey instrument might have utilized language unfamiliar to an athletic trainer or been formatted in a manner that limited the proper completion of the survey. Not all parts of the survey instrument were completed by participants due to the nature of the study; therefore the number of respondents varied. Variations in a participant's job descriptions could also have limited the accuracy of the study.

Delimitations

Two delimitations were identified for this study. This study specifically sought input from head and assistant athletic trainers, as their job descriptions can involve an administrative responsibility. Second, only collegiate athletic trainers were utilized as this is one setting that is not owned and managed by a healthcare provider. For these reasons, this study was limited to athletic trainers in the collegiate setting.

Assumptions

There were several assumptions to this study. It was assumed that athletic trainers in the collegiate setting have similar administrative responsibilities. Second, it was assumed that collegiate athletic trainers have some form of policies and procedures, either written or oral form. Third, it was assumed that athletic trainers recognize the various titles given to a policy and procedure document, such as standard operating procedures or risk management manual.

Operational Definitions

Risk Management Practices – Values derived from Part I of the Athletic Training Risk Management Practices Questionnaire.

Important Risk Management Practices – Values derived from Part I of the Athletic Training Risk Management Practices Questionnaire.

Head Athletic Trainer Responsibilities – Values derived from Part III of the Athletic Training Risk Management Practices Questionnaire.

Resources Used to Develop Risk Management Practices – Values derived from Part IV of the Athletic Training Risk Management Practices Questionnaire.

Summary

Athletic trainers are health care professionals who have a duty to provide a standard of care to their patients. Many resources are available to athletic trainers offering guidance in the standard of care. The policy and procedure manual that a collegiate athletic trainer develops is one way to outline a specific standard of care to be utilized at the respective facility. This manual also serves as a risk management tool.

This study describes the current risk management practices of collegiate athletic trainers, perceived risk management practices important to athletic trainers, the risk management responsibilities of the head athletic trainer, and the types of resources utilized in the development of a risk management plan by the collegiate athletic trainer.

CHAPTER TWO: REVIEW OF LITERATURE

The collegiate athletic trainer has limited guidance and training in risk management and the development of written policies and procedures from within the profession. A clearinghouse does not exist that provides best practices in risk management or policy and procedure development for the collegiate athletic trainer. In addition, there is no accrediting body with established standards governing collegiate athletic training facilities, as there is for other health care professions, such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) or Commission on Accreditation of Rehabilitation Facilities (CARF).

Currently, no research in the field of athletic training exists that examines athletic training risk management practices in its entirety. To further enhance the knowledge and practice of athletic trainers, it is essential to examine, evaluate, and describe the existing risk management practices of athletic trainers in collegiate athletic training facilities as a means to manage risk and provide a consistent standard of care across facilities. The profession needs a comprehensive examination of existing risk management practices in the collegiate setting to identify current trends and establish a foundation to move the profession forward.

The purpose of this study was to identify and describe (a) risk management practices of collegiate athletic trainers, (b) perceived risk management practices important to the collegiate athletic trainer, (c) risk management responsibilities of the head athletic trainer, and (d) resources utilized by collegiate athletic trainers in the development of a risk management plan. This information establishes a baseline of current risk management practices in the collegiate athletic training setting for the

profession of athletic training. The results of the study provide the foundation for identifying best practices in risk management, expanding the knowledge of practicing athletic trainers, and developing readily available resources in risk management. Therefore, this study sought to identify current risk management practices and perceptions of the collegiate athletic trainer.

Risk Management

Risk management is defined in many ways. Spengler, Connaughton, and Pittman (2006) defined risk management as "reducing or eliminating the risk of injury and death and potential subsequent liability that comes about through involvement with sport and recreation programs and services" (p. 2). Ray (2000) described risk management as "a process intended to prevent financial loss for an organization" (p. 223). Rankin and Ingersoll (2001) described risk management as a strategy "to decrease exposure to negligence and possibly other malpractice claims" (p. 168). In her book *Law and the Team Physician*, Gallup (1995) defined risk management as an insurance term utilized to reduce, resolve, or transfer risks. Carpenter (1995) defined risk management as "an integrated strategy for both conducting safe, equitable programs and reducing the potential for loss arising from successful legal claims against the program, its individual employees, and administrators" (p. 117). The *Contemporary Sport Management* text edited by Parks and Quarterman (2003) defined risk management as "The control of financial and personal injury loss from sudden, unforeseen, unusual accidents and intentional torts" (p. 267). Cotton, Wolohan, and Wilde (2001) best defined risk management as more than safety and prevention, but "an organized plan by which a recreation or sport business can manage and control both the programmatic risks and the

financial risks facing the organization…not only *what to do* to control risks, but also involves *why to do it*" (p. 263).

Risk Management Plan

Whatever the definition, in order to manage the risk a plan must be developed and implemented. Risk management plans vary as well. However, consensus can be found in implementing a risk management plan through the conceptual areas of identification, evaluation, and management (Carpenter, 1995; Gallup, 1995; Rankin & Ingersoll, 2001). In order to manage risk, the potential for risk must first be identified. Each area of risk must be evaluated for the harm or damage that can occur and a level of risk assigned. With this information, an appropriate plan can be formulated to manage the level of risk assigned to each identified area of risk. The literature offers a variety of processes in formulating risk management plans.

Ammon (2001) described a tool to establish a risk management plan involving three steps "1) Developing the risk management plan; 2) Implementing the risk management plan; and 3) Managing the risk management plan" (2001, p. 266). Ammon labeled this tool the "D.I.M. Process."

Spengler, Connaughton, and Pittman (2006) identified three areas as the framework for managing risk: (a) identify the general and specific hazards, (b) evaluate the severity and probability of harm, and (c) develop methods to reduce the risk of injury or death. Carpenter (1995) also addressed risk management planning with a three step process, consisting of (a) identification, (b) evaluation, and (c) management.

According to van der Smissen (1990) three parts of a risk management plan include (a) statements of the policy, (b) risk analysis and determination of control

approaches, and (c) implementing process. In this plan, statement of policy begins with guidance from the governing board of the organization. These statements delineate the risk manager and associated responsibilities, the scope of the program, budgetary support, and the extent of the approaches to be developed and utilized. The second part of this plan, risk analysis and determination of control approaches, incorporated the first two steps from Carpenter (1995) and Spengler, Connaughton, and Pittman's (2006) framework: identification and evaluation. Van der Smissen (1990) added an additional aspect to identification and evaluation: determination of available options to control risk. The final steps in van der Smissen's plan, implementation process, required the selection of the control approach, operationalizing the approaches into procedures, and monitoring the procedures for effectiveness.

Peterson and Hronek (2003) proposed a detailed 16 step plan for managing risk The steps outlined by Peterson and Hronek (2003) are 1) Philosophy and Policy Statements, 2) Needs Assessment, 3) Goals and Objectives, 4) Site and Facility Development, 5) Program Development, 6) Supervision, 7) Establishment of Rules, Regulations, and Procedures, 8) Safety Inspections and Investigations, 9) Accident Reporting and Analysis, 10) Emergency Procedures, 11) Releases, Waivers, and Agreements to Participate, 12) Methods of Insuring Against Risk, 13) In-service Training, 14) Public Relations, 15) Outside Specialists, Legal and Insurance, and 16) Periodic Review (p. 46). These 16 steps became the foundation for risk management studies conducted by Fleitz-Bosco (1999) and Styles (2002).

In 1999 Fleitz-Bosco studied risk management practices in urban recreation centers across the United States utilizing the 16 step plan. The findings suggest a

relationship between the model plan in written and operational form and the number of reported lawsuits.

In 2002 Styles studied risk management development at university recreational facilities utilizing the 16 step plan. The findings conclude recreational directors of university recreational facilities create their own risk management manuals. The findings also found that recreational directors primarily utilize the ACSM and NIRSA documents for assistance in creating their risk management manuals.

A risk management plan can range from simple to complex. It must, however, be carefully developed and implemented, and it must be tailored to the institution and profession. Each risk must have a specific outline; generalized or vague explanations will not manage the risk, but may instead increase the risk (van der Smissen, 1990).

In the development step, risks must be identified, classified, and a method of treatment assigned. Identification of risk requires a thorough review of the organization and activities. Failure to identify a risk will result in its inadvertent exclusion from the risk management plan. Next, all identified risk items must be classified by frequency and severity of loss from the risk. Frequency of a risk is categorized from low to high and the severity is categorized from low to catastrophic (Ammon, 2001). The final step in the development phase of the risk management plan is determining how to handle each risk, also known as the treatment of the risk.

Treatments of risk areas have four basic applications: (a) avoidance, (b) transfer, (c) retention, and (d) reduction. When designating an area as avoidance, the risk area or activity should be eliminated or discontinued. The transfer of risk shifts responsibility to another party. Retention of risk is common for areas with minor or minimal risk

involved. Reduction of risk requires attempts to minimize, diminish, or eliminate the risk. Reduction of risks is one of the most important aspects of risk management and an effective means of diminishing the frequency of litigation (Ammon, 2001).

Implementation of a risk management plan requires communication, documentation, and training. A risk manager must communicate the plan to all personnel. The plan should be documented, such as a policy and procedure manual. Finally, the risk manager must have a training program in place to educate and update personnel on the risk management plan. A training program should be on-going and not only occur when an individual is first hired (Ammon, 2001).

The management involves the hiring of a risk manager, providing authority to the manager, and encouraging input from employees. In the ideal setting, a risk manager would be hired to manage the plan. However, budget constraints can require the delegation of risk management to a risk management committee (Ammon, 2001; van der Smission, 1990).

Van der Smissen (1990) recommended the risk manager evaluate nine areas as a means of risk reduction. The nine areas are: "1) competence of personnel, 2) conduct of services, 3) participants, 4) maintenance, 5) environmental milieu, 6) warnings, 7) standards, 8) information/documentation system, and 9) public relations." (van der Smissen, 1990, p. 20)

Legal System

Laws are rules and regulations which govern society in a formal and binding manner. In essence, laws govern our behavior, and failure to comply with the law can result in criminal or civil penalties (Betts & Waddle, 1992; Parks & Quarterman, 2003).

Laws evolve to adapt to society and are a reflection of society as created by judges, juries, and Congress (Aiken, 1994; Fried, 2001 Parks & Quarterman, 2003; van der Smissen, 1990). Legal rights of women and minorities are examples of a changing and adapting law.

The legal system in the United States consists of four sources of law: constitutional law, statutory law, administrative law, and common law (Aiken, 1994). Each source of law has a role in health care.

Constitutional Law

The Constitution of the United States is the foundation for laws in the United States. Laws derived from the United States Constitution are referred to as constitutional law. An example is the separation of church and state (Fried, 2001). Constitutions also exist at the state level, which results in state constitutional law (Fried, 2001). Laws not defined or expressed by the federal government are reserved for the state government (Aiken, 1994). Health care regulation primarily falls under the jurisdiction of each state.

Statutory law is created and enacted by legislative bodies, occurring at the federal, state, and local levels. Federal statutory law is enacted by the United States Congress and only federal courts have jurisdiction over federal law. Likewise, state statutory law falls under the jurisdiction of the state courts (Aiken 1994; Fried, 2001), and is enacted by the state legislature.

While a legislative body creates a law, the onus is on the administrative or regulatory agency to develop the rules and regulations others will utilize to follow the law. These rules and regulations became known as administrative law (Aiken, 1994) and they occur at the federal, state, and local levels, depending upon the legislative body that

enacted the law. For example, Congress created Title IX in 1972 as part of the Education Amendment. Three years passed before the Office of Civil Rights (formerly known as the Department of Health, Education, and Welfare) developed specific regulations (Carpenter & Acosta, 2005; Valentin, 1997).

Common law evolves from court decisions, often known as case law. Case law is formed from a body of legal opinions as a result of past judicial decisions (Aiken, 1994; Carpenter, 1995). As new complaints are decided by a judge or jury, the legal opinion is added to the current body of case law. When a new complaint is litigated with similar facts, past judicial decisions or case law will be utilized to guide the direction of the new dispute. In other words, the previous decision sets a precedent for the new complaint (Carpenter, 1995).

When an individual feels a wrong has been committed a complaint or petition is filed with the court in the appropriate jurisdiction. This complaint is known as a lawsuit and the individual filing the complaint becomes the plaintiff. The person or organization accused of wrongdoing and whom the complaint is filed against becomes the defendant (Aiken, 1994; Gallup, 1995; Jones, 1999). In civil claims of negligence the onus is on the plaintiff to provide evidence of negligence committed by the defendant (Aiken, 1994; Carpenter, 1995; Gallup, 1995; Jones, 1999). This responsibility is known as the burden of proof.

Once a complaint has been filed, both parties, the plaintiff and defendant, can begin the discovery phase of pretrial activity – the process of investigating the facts. The investigation can include depositions, interrogatories, admissions of fact, and requests for production of documents. Depositions involve answering questions from the opposing

lawyers under oath (Fried, 2001; Gallup, 1995). "Interrogatories are written questions sent by one party to the other requesting *information* about issues and witnesses surrounding the incident" (Aiken, 1994, p. 83). Admissions of fact is a technique utilized to control the facts that may be argued or disputed at trial. A written request is made to the opposing side seeking to admit or deny specific facts (Aiken, 1994; Gallup, 1995). A request for production of documents pertains to items that can lead to information in the case. Documents could include diaries, medical files, policy and procedure manuals, personnel files, calendars, pictures, and any other documents deemed pertinent to the case (Aiken, 1994).

Formal complaints, or lawsuits, do not always appear before a judge or jury. A complaint can be dropped by the plaintiff, dismissed by the judge, settled, or mediated. Information found during the discovery phase can lead the plaintiff to drop the complaint. This is usually the result of a lack of evidence. Through various legal actions and briefs, a judge can order a complaint dismissed for lack of evidence (Gallup, 1995).

The investigation of the facts in a lawsuit can span several years. The cost of litigation becomes high for both the plaintiff and the defendant. Media coverage of a lawsuit can be detrimental to both parties, as the public continues to hear allegations in the case. For the sake of financial and emotional well-being, and possible avoidance of a guilty verdict, the defendant may offer a settlement. A settlement involves the offer of an item, often monetary, in exchange for dropping or withdrawing the complaint. The out-of-court settlement does not identify fault, but often implies the expense or time of a trial would be greater than the actual agreement reached in the settlement (Carpenter, 1995; Gallup, 1995).

The litigious nature of society has created a back log of court cases to be heard by a judge or jury. In recent years parties of a lawsuit have sought mediation, either by choice or by direction of a judge, as a legal alternative to a trial. During mediation both parties utilize a mediator, or independent third party, to facilitate a resolution (Aiken, 1994). Mediation provides the opportunity for both parties to present their case without the pressure of time or the expense of a trial.

A lawsuit that has been dropped, dismissed, mediated, or settled cannot set a precedent because the facts of the case were not decided in court, but rather outside of court. These lawsuits can be tracked through the courthouse where the complaint was filed. Lawsuits that are litigated through a judge can be tracked through databases such as LexisNexis and Westlaw.

Negligence

Two categories of law exist: criminal law and civil law. Criminal law is also considered to be public law, while civil law is considered to be private law (Sullivan & Decker, 2005). Criminal law applies when an offense, or crime, has occurred against the public. A crime, such as a felony, misdemeanor, or juvenile, is prosecuted by the government (Jones, 1999; Tappen, Weiss, & Whitehead, 1998).

Civil law applies when an offense has occurred against another individual resulting in harm. The injured person can seek compensation for damages suffered through civil law, utilizing an attorney to file a complaint (Jones, 1999). Examples include tort law and contract law.

Tort law is a wrong committed by one person against another person or property and is categorized at intentional or unintentional (Aiken, 1994; Carpenter, 1995; Jones,

1999; Sullivan & Decker, 2005; Tappen, Weiss, & Whitehead, 1998; van der Smissen, 2001). An intentional tort occurs when the action is willful and intended to hurt another person, such as assault, battery, libel, or slander (Aiken, 1994; Carpenter, 1995; Sullivan & Decker, 2005). Intentional torts require the plaintiff to prove the defendant has intent and motive, which resulted in damages (Aiken, 1994; Carpenter, 1995).

An unintentional tort is "an unintended, wrongful act against another person that produces injury or harm" (Aiken, 1994, p.8). Negligence and malpractice are unintentional torts (Aiken, 1994; Jones, 1999; Sullivan & Decker, 2005; van der Smissen, 2001). Negligence can be defined as conduct that creates undue risk and harm to others (Jones, 1999). Negligence is an unintentional act that occurs as a result of omission or commission. Omission is the failure of an individual to perform an act. With commission the individual performs the act, but the individual fails to perform the act in a manner that a reasonable and prudent person would perform in a similar situation (Aiken, 1994; Sullivan & Decker, 2005; van der Smissen, 2001).

Malpractice is known as professional negligence. Malpractice occurs when a professional "fails to act as other reasonable and prudent professionals who have the same knowledge and education would have acted under similar situations" (Aiken, 1994, p 8). For the negligent act to be considered malpractice, the act must occur by a professional while carrying out professional responsibilities and duties (Aiken, 1994; Sullivan & Decker, 2005; Tappen, Weiss, & Whitehead, 1998). Without meeting this requirement, the act would strictly be negligence, not malpractice.

Whether the alleged incident is filed as malpractice or negligence, a formal complaint filed with the court requires the plaintiff to establish four elements: duty, a

breach of that duty, causation, and damage. All four elements must be proven for an individual to be held liable (Aiken, 1994; Jones, 1999; Osborne, 2001; Tappen, Weiss, & Whitehead, 1998; van der Smissen, 1990; van der Smissen, 2001). Failure to prove any of the four elements will warrant dismissal of the case.

The plaintiff in a malpractice or negligence case must first demonstrate that a duty exists. Duty identifies a legal relationship between two parties, not an action. Carpenter (1995) defined it as "the duty to protect from the foreseeable risk of unreasonable harm" (p. 40). Typically, the relationship falls into one of three categories: inherent, voluntary assumption, or statute. The relationship can be inherent, such as a patient to healthcare provider or an athlete to a coach. A relationship can be established through voluntary assumption. van der Smissen (2001) used the example of a volunteer Little League coach and a young player. The relationship can be established by statute, such as employment situations. Once the special relationship is demonstrated, the plaintiff must establish the second element: breach of duty.

With the duty established, the plaintiff must demonstrate the duty or relationship was breached. In other words, the duty was not met or was substandard. In a trial an expert witness may be called to testify as to the current standards and if the defendant met the current standard or not (Carpenter, 1995; Gallup, 1995). Practice acts, position statements, and policies and procedures are examined to establish a standard of care and determine a breach in the duty.

The third element that must be proven is cause: did the negligent act cause the injury (van der Smissen, 1990). Cause is determined by how much of the negligent act,

either omission or commission, is to blame for this injury. In other words, the failure to provide the standard of care was breached and was all or part of the cause of the injury.

The final element the plaintiff must prove is harm. The plaintiff must demonstrate that the breach of duty is partially the cause of the injury and the result of injury caused harm. The plaintiff usually seeks compensatory damages for the caused harm in the form of economic loss, physical pain and suffering, emotional distress, and/or physical impairment (van der Smissen, 1990).

Various individuals can be liable for negligence and malpractice. The individual who committed the negligent act has personal liability and can be named as a defendant. The organization or administrator supervising an individual can also be held liable for the actions of the individual. This is known as vicarious liability. Vicarious liability comes from the doctrine of *respondeat superior* (Cotton, Wolohan, & Wilde, 2001; Sullivan & Decker, 2005). *Respondeat superior* states "the negligence of an employee is imputed to the corporate entity if the employee was acting within the scope of the employee's responsibility and authority" (Cotton, Wolohan, & Wilde, 2001, p. 49). Some employees incorrectly presume they are protected from liable situations as a result of vicarious liability and *respondeat superior* doctrine.

Health Care Professions

The health care field is comprised of medical and allied health professionals with formal education and training in various aspects of medicine. The American Medical Association recognizes more than 65 different health care professions in addition to physicians (AMA, 2006). Employment and practice settings for health care providers are diverse, but the more common facilities include hospitals, rehabilitation centers, therapy

clinics, nursing homes, and private practice. Healthcare providers and their respective practice settings are regulated by facility accreditation, law, and profession specific standards of practice.

Accrediting Agencies

Healthcare facilities are accredited by designated accrediting bodies, such as the Commission on Accreditation of Rehabilitation Facilities (CARF) and Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Healthcare organizations adopt standards created by accrediting bodies to obtain accreditation for the facility. The administration of the healthcare facility creates and implements policies as a result of the accreditation standards. The accreditation standards are different from the licensure and certification of individual health care providers (Bouchard, 1994).

CARF accredits facilities offering rehabilitative services, seeking to improve the quality of care to the patient. JCAHO accredits more than 14,000 health care organizations and program in the United States. As the largest accrediting and standard-setting body in health care, JCAHO's mission is to improve the safety and quality of care provided to the public (Joint Commission on Accreditation of Healthcare Organizations [JCAHO], n.d.b; Prentice, 2003). JCAHO evaluators identify the strengths and weaknesses of the facility and outline improvement plans for the facility to comply with standards of accreditation (Bouchard, 1994).

JCAHO has accreditation programs for the following types of facilities: ambulatory care, assisted living, behavioral health care, critical access hospitals, home care, hospitals, laboratory services, long term care, networks, and office-based surgery (Joint Commission on Accreditation of Healthcare Organizations [JCAHO], n.d.).

Standards are established and published for various services in healthcare facilities and each standard has required characteristics specific to standard of care (Aiken, 1994). Healthcare administrators select the standards appropriate to the respective healthcare facility and demonstrate compliance through each characteristic.

Healthcare Practice and the Law

Healthcare providers and administrators are faced with the various imposed external requirements and the litigious nature of our current society. The law is constantly evolving and reflects the changes and shifts in society (Aiken, 2002). The frequency of lawsuits against physicians and healthcare providers has been increasing, along with the severity of damages awarded (Gallup, 1995). The most common complaint filed is negligence as a result of medical malpractice (Gallup, 1995).

Health care professionals have a duty to the patient to provide a standard of care. This standard of care must be provided at the level of an ordinary, reasonable, and prudent person under the same or similar circumstances (Jones, 1999; Osborne, 2001; West & Ciccolella, 2004). In healthcare, standards of care provide guidelines for appropriate and quality patient care that must be followed to protect the patient (Aiken, 1994). The standard of care varies from profession to profession; nurses are held to the standard of care for nurses, not to the standard of care for physicians, radiologists, or athletic trainers. Standard of care is established by the state practice acts for each profession, federal law such as the Occupational Safety and Health Administration (OSHA), professional organization position statements, and policy and procedure manuals.

Credentialing, or regulation, of healthcare professionals occurs at the state level through state practice acts in the state where the healthcare professional desires to practice. States have statutory laws for the healthcare professional passed by the state legislature. State practice acts are a form of statutory law and the practice act governing a specific healthcare profession will vary from state to state. A practice act provides the framework within which a healthcare professional can practice her knowledge and training (Sullivan & Decker, 2005).

Practice acts may or may not be part of the statute, depending upon the political makeup of a state (Aiken, 1994). State legislature delegates a regulatory agency to create the administrative law, or the rules and regulations, for the profession. An example is the state board of nursing, the state board of dental examiners, or the state board of physical therapy. To practice in a state, the healthcare provider must contact the state board of the respective healthcare profession and demonstrate compliance and competence with the specific rules and regulations of that state. Demonstration of compliance and competence with the rules and regulations results in licensure of the individual for the specific healthcare profession.

The rules and regulations for a healthcare profession identify the minimum requirements necessary to provide patient care as a means to protect the public. In essence, a standard of care is established. State practice acts and licensing laws vary from state to state (Aiken, 1994; Sullivan and Decker, 2005), thus the standard of care may vary from state to state.

Federal statutes also delineate a standard of care between the healthcare provider and a patient. The Health Information Portability and Accountability Act of 1996

(HIPAA) was implemented in 2003 to ensure greater measures were undertaken by healthcare providers to protect the privacy of the patient (Sullivan & Decker, 2005). The Occupational Safety and Health Act of 1970 was created to ensure safe and healthy work environments for employees, including the establishment of guidelines to minimize on-the-job risks (Sullivan & Decker, 2005). In 1991, OSHA published regulations to reduce an employee's risk of infection from blood-borne pathogens (Sullivan & Decker, 2005). This was followed by revised regulations in 2001. The 1970 act resulted in the creation of three administrative organizations to enforce it: the Occupational Safety and Health Administration (OSHA), the National Institute of Occupational Safety and Health (NIOSH), and the Occupational Safety and Health Review Committee (OSHRC) (Sullivan & Decker, 2005). A violation of these federal laws would fall under federal jurisdiction.

Likewise, federal regulations exist governing drug administration and dispensation. The Federal Food, Drug, and Cosmetic Act (FDCA) of 1938 regulated the quantity, strength, and labeling of nonprescription and prescription drugs. The Federal Anti-Tampering Act of 1983 created a 7-point label requirement and tamper-resistant packaging for all nonprescription drugs. The Omnibus Reconciliation Act of 1990 (OBRA) mandated drug review, patient medication records, and verbal education for patients as requirements for the dispensation of prescription medications. Individual states also impose laws and regulations governing drug dispensation and administration.

A healthcare professional must be knowledgeable in all areas of law that pertain to their profession and employment setting. Failure to demonstrate compliance could result in federal penalties or malpractice.

Professional Organizations

Further structure for healthcare professionals is provided through their respective professional bodies, such as the American Nurses Association (ANA), the National Athletic Trainers Association (NATA), the American Physical Therapy Association (APTA) or the American Occupational Therapy Association (AOTA). These organizations provide their affiliates and members with standards of professional practice and position statements (Aiken, 1994; American Occupational Therapy Association [AOTA], n.d.; American Physical Therapy Association [APTA], n.d.; Board of Certification [BOC], n.d.c.).

Standards of practice are a profession's statement of minimum requirements for an individual to practice. Standards of practice result in consensus among the profession on the quality of care provided to patients (Aiken, 1994). The nursing profession has grown and diversified into specialty areas, resulting in standards of practice specific to each specialty (Aiken, 1994). These specialty standards of practice in nursing are published in individual books, such as the Scope and Standards of Practice for Nursing Professional Development (American Nurses Association, 2000), Scope and Standards for Nurse Administrators (American Nurses Association, 2004) and the Nursing: Scope and Standards of Practice (American Nurses Association, 2004). Other professions post the standards of practice online through professional organizations, such as the Standards of Practice for Occupational Therapy (AOTA, n.d.) and Criteria for Standards of Practice for Physical Therapy (APTA, n.d.). Professions vary on the depth and scope of the Standards of Practice.

Position statements and practice guidelines are another type of publication by professional healthcare organizations. Most professions will delineate clear boundaries for standards of practice versus position statements and practice guidelines in an effort to prevent position statements and practice guidelines from becoming a standard of care in and a protective liability measure for the organization (Herbert, 1995). "Guidelines suggest or recommend practices by which standards of care can be met; however, the standards do not mandate compliance with the guidelines" (Aiken, 1994, p 61). Professions differentiate between the two as a measure of protection in litigation.

Organizations recognize the legal implications of dictating policy to its members as mandates, as a policy development will vary as a result of state law, institutional autonomy, and programmatic objectives. Regardless of the title, these documents carry underpinnings of standards of practice and are open to interpretation by the courts.

Risk Manager

The extent of the responsibility for managing the knowledge from accrediting bodies, laws, standards of practice, and position statements is overwhelming and time consuming. A healthcare provider could spend valuable time understanding each area of compliance and instead of time spent on patient care. In 1980 the American Society for Healthcare Risk Management (ASHRM) was established as a branch of the American Hospital Association (AHA) with a focus on "developing and implementing safe and effective patient care practices, the preservation of financial resources and the maintenance of safe working environments" (American Society for Healthcare Risk Management [ASHRM], n.d.). ASHRM evolved from the AHA members representing insurance, law, health care, and other related professions.

In the health care environment, guidance on risk management and the standard of care is typically provided through a risk management department or a facility manager. Healthcare administrators hire risk managers to analyze the risk and understand the framework of the law, external agencies, and professional organizations. A risk manager is then given the authority to develop and implement the risk management plan to facilitate structure and uniformity within the organization (American Society for Healthcare Risk Management, 2005).

At the same time, the individual healthcare provider must also be a risk manager. Risk management is the responsibility of the institution in which a healthcare provider works and of the healthcare provider, who must be an effective risk manager every working minute (Abood, 2005). In *Harco Drugs, Inc. v. Holloway* (669 So.2d 878, Ala. 1995) a pharmacy company was found reckless for not having more substantial quality assurance systems when a pharmacist filled a prescription with the wrong drug. The outcome of the suit places responsibility for quality assurance on the pharmaceutical company, while the individual pharmacist is responsible for working within the quality assurance system (Abood, 2005).

In some hospitals, risk management is seen as one aspect of quality assurance. "Quality assurance is a process used to evaluate the type and level of patient care that is given by the health care provider" (Aiken, 1994, p. 238). Patient care trends and patterns are evaluated in order that change can be made for improved patient care outcomes (Aiken, 1994). JCAHO has embraced the method of continuous quality improvement (CQI). Literature also identifies CQI as total quality management (TQM) and quality improvement process (Aiken, 1994). Healthcare leaders engender quality outcomes in

patient care, utilizing CQI as a method to monitor and improve outcomes (Aiken, 1994). In some organizations the quality assurance department and the risk management department might function as one unit with the same head of the department or risk manager (Bouchard, 1994).

Policy and Procedure

In the book, *Establishing a System of Policies and Procedures*, Page (2002) identified reasons for documenting policies and procedures. These reasons included (a) clear reference of the job, (b) a clear understanding of responsibilities, (c) a clear understanding of boundaries, (d) a baseline for future changes, (e) ease of identification of improper action, (f) freedom for an individual to make good decisions within the boundaries, and (g) preparation of events prior to the occurrence.

A risk manager is ultimately responsible for the implementation of risk management plans, with the results often published as policies and procedures. A policy and procedure manual becomes a written document utilized as a risk management tool. The document "provides a blueprint for who does what for whom and under what circumstances within the program setting" (Herbert, 1995, p 67).

A policy creates an expectation or guide for an action whereas a procedure is the method or instructions to carry out the policy (Aiken, 1994; Bouchard, 1994; Konin, 1997; Page, 2002). Policies and procedures for health care facilities should cover all aspects of patient care, while still being reasonable. Policies and procedures must meet the standard of care, and can exceed the standard of care if desired. Once created the risk manager must maintain and review the plan, and implement on-going training for employees. A supervisor designated by the risk manager should ensure staff periodically

review the manuals and perform their job in accordance with the policies and procedures specified in the manual (Aiken, 1994). Herbert (1995) reported on an Arizona court ruling that hospital protocol is evidence of a standard of care and the failure of the provider to follow the standard was negligence. In *Parker v. Southwest Louisiana Hospital Association* (1989), the hospital's policy exceeded the national standards. In this case the employees followed the national guidelines but did not follow the hospital guidelines. As a result, the hospital was held to a higher standard of care and became liable for the death of a patient. A risk manager must also have policies and procedures governing assistants, interns, students, and volunteers. These individuals must also undergo periodic training of policies and procedures as the organization can be held liable under the doctrine of *respondeat superior*.

JCAHO requires written polices and procedures as part of the risk management activities, providing standards of care for the facility (Guido, 2003). Thus, policies and procedures are a requirement of JCAHO accredited health care organizations. A policy and procedure document serves to "standardize care, set standards, and guide practices" (Sullivan & Decker, 2005, p 79).

Policies and procedures should be clearly stated and based upon current practice (Bouchard, 1994; Sullivan & Decker, 2005). The document must be developed within the boundaries of accrediting agencies, standards of care, standards of practice, federal statutes, and professional position statements (Herbert, 1995), not to mention a respectful review of applicable case law. A policy and procedure manual should be assessed on an annual basis and allow for change as the law or environment changes.

Athletic Training Profession

Athletic trainers are credentialed health care professionals recognized by the American Medical Association (AMA) since 1990. The certified athletic trainer (ATC) is an expert in injury prevention, assessment, treatment, and rehabilitation (Board of Certification [BOC], n.d.a). Athletic training has been around since the early part of the 1900s. The athletic trainer originally began as the manager, water boy, or first aid provider for athletic teams. Individuals did not formally organize until 1950, when the National Athletic Trainers' Association (NATA) was created in Kansas City by 200 athletic trainers employed by universities throughout the United States (Ebel, 1999). The NATA serves as the professional organization for certified athletic trainers and affiliate personnel with an interest in the profession of athletic training. The NATA has an established Code of Ethics indicating the principles of ethical behavior in the practice of athletic training. The profession outlined four principles with the intent to represent the spirit of sound decision making by athletic trainers. (BOC, 2005) The principles are:

> Principle 1: Members shall respect the rights, welfare, and dignity of all.
>
> Principle 2: Members shall comply with the law and regulations governing the practice of athletic training
>
> Principle 3: Members shall maintain and promote high standards in their provision of services.
>
> Principle 4: Members shall not engage in conduct that could be construed as a conflict of interest or that reflects negatively on the profession (NATA, 2005).

Employment Settings

Since the formal organization began, the profession has grown to 33,000 certified members who work in a variety of employment settings (BOC, n.d.b). The profession that originally began in the collegiate setting now has certified members employed and practicing in settings such as colleges, high schools, hospitals, rehabilitation centers, industrial rehabilitation, and therapy clinics. (Anderson, Hall, & Martin, 2004; Prentice, 2003;). In the collegiate setting, athletic trainers are unique healthcare providers, interacting with patients far more than any other health care professionals. A 15 week season with six days of practice per week and three hours of practice related activities per day, not including additional rehabilitation time, results in 270 patient contact hours – in only 15 weeks.

When employed by a healthcare facility, such as a hospital, rehabilitation center, or therapy clinic, the athletic trainer is working in an environment centered on healthcare and the respective standards of practice and healthcare accrediting agencies. Risk management practices are already in place and maintained by a risk manger or risk management department.

Athletic trainers employed by a college are traditionally part of an educational and athletic environment, not a healthcare environment. The healthcare facility is known as the athletic training room and is often housed within the athletic department or program. Institutions do have regional accrediting agencies, such as North Central Association of Colleges and Schools and Southern Association of Colleges and Schools. However, the emphasis of these accrediting agencies is related to the quality of the education not the standard of care in the athletic training room.

From an athletics viewpoint, the collegiate athletic training room does fall under the auspices of the affiliate athletic organization, which is either the National Collegiate Athletic Association (NCAA) or the National Association of Intercollegiate Athletics (NAIA). While neither organization accredits the collegiate athletic training room, both publish separate handbooks on sports medicine/athletic training guidelines.

Athletic training originated from athletics and was not recognized as a healthcare provider until 1990. This is a non-traditional beginning for a healthcare provider, as most of them have their roots and initiation in a health care setting. Probably as a result of this different heritage, JCAHO currently does not accredit the collegiate athletic training room as a healthcare facility.

Athletic Training Practice and the Law

As healthcare providers, athletic trainers have similar legal obligations, relationships, and responsibilities when it comes to federal statutes, state statutes and practice acts, case law, duty, standard of care, and credentialing. The university also has a legal obligation and responsibility when sponsoring intercollegiate athletic programs. "As a general rule, an institution must use reasonable care in conducting its intercollegiate athletics program to prevent foreseeable harm to its student-athletes" (Mitten, 2002).

As healthcare providers, athletic trainers have a relationship with the patient; in the collegiate setting this patient is more commonly called the athlete. This relationship implies the existence of a duty, which is consistent with other healthcare providers. Due care implies a standard of care "of an ordinary, reasonable, and prudent person under the same or similar circumstances" (West & Ciccolella, 2004, p. 63). Failure to conform to

a standard of care leaves the patient at risk of harm and the athletic trainer liable for his actions, or lack of actions. From the decision of *Searles v. Trustees of St. Joseph's College* (1997) reaffirmed the duty of a collegiate athletic trainer to conform to a standard of care. The decision in *Searles v. St. Joseph's* (1997), an athletic trainer "has a duty to conform to the standard of care required of an ordinary [athletic] trainer". The plaintiff was diagnosed with patellar tendonitis during his freshmen year. He quit the team the following year as a result of chronic knee pain. The plaintiff filed a complaint against the head athletic trainer for failing to inform the coach of the seriousness of the condition and long term results of participating with this type of condition. The coach was also named as a defendant; the coach claimed the athletic trainer never informed him of the complications of participating with this type of injury and that the final decision to play belonged to the athletic trainer, not the coach.

In *Gillespie v. Southern Utah State College* (1983) the court determined the standard of care applied to the athletic trainer was elevated to that of a physician. The court stated the athletic trainer had more educational training and expertise than a normal lay person and thus was held to a higher standard. In this case, a basketball player was injured in practice and treatment was turned over to the student trainer. The player applied ice to himself that evening – improperly – and sustained frostbite which resulted in amputation of a gangrenous toe.

The liability carries over to the intercollegiate athletics program and the university. In *Kleinknecht v. Gettysburg College* (1993), the court found that an institution "has a duty to be reasonably prepared for handling medical emergences that foreseeably arise during a student's participation in an intercollegiate contact sport for

which a college recruited him." In this particular case a male lacrosse player was participating in practice when he collapsed. No athletic trainer or athletic training student was with the team at the time and none of the supervisors or coaches were trained in basic first aid and CPR. A teammate had to leave the area to find medical assistance. The court determined that a special relationship exists between a university and its recruited athletes. Thus, the institution had the responsibility to be prepared.

The courts took a slightly different stance in *Orr v. Brigham Young* (BYU) (1997). The court rejected the claim of a special relationship, instead finding the relationship to be contractual from the perspective that BYU provided medical benefits to an athlete in exchange for playing football.

The case of *Pinson v. State of Tennessee* (1995) is an example of the courts determining a standard of care exists and the use of respondeat superior by the plaintiff. In this case, the athletic trainer failed to inform medical personnel of critical signs and symptoms at the time of the original injury. At a later date the athletic trainer failed to inform the team physician of recurring signs and symptoms. A month later the plaintiff underwent brain surgery for a chronic subdural hematoma and suffered permanent neurological damage.

In accordance with other healthcare professions, a state legislature can create a law governing athletic trainers. The administrative law, or rules and regulations, is then created by the state licensing board. The state practice act may be part of the statute or part of the rules and regulations by the licensing board. Either way, the practice act provides the framework within which the athletic trainer can practice her knowledge and skills (Sullivan & Decker, 2005). Credentialing, or regulation, of athletic trainers occurs

at the state level through state practice acts in the state where the athletic trainer practices. State practice acts vary widely, particularly when examining the definition of athletic trainer and athlete. The practice acts are laws governing athletic trainers as a means to protect the public.

Not all healthcare professions have or require state boards, such as radiologic technologists and athletic trainers. Forty-four states have some form of athletic training regulation, which varies from licensure to certification to registration. Currently, four avenues for credentialing exist within the 50 states: licensure, registration, certification, and exemption (Ray, 2000), with licensure being the most restrictive. The intent of licensure is to protect the public and regulate who may practice and perform the duties of an athletic trainer. Most often, there is an application and licensure fee. Currently 33 states have licensure (National Athletic Trainers' Association, n.d.).

Certification is less restrictive. It is a process of ensuring that an individual meets the minimum qualifications and skills to practice as an athletic trainer. Individuals can receive certification at the national level as well. For the profession of athletic training, the Board of Certification (BOC) is the certifying agency (Ray, 2000). Six states have certification (National Athletic Trainers' Association, n.d.).

A state with registration requires an athletic trainer to only register with the state with the intention of practicing in the state. Registration is basically a form of title protection, as skills are not monitored. For example, in a state with registration an individual could perform the skills of an athletic trainer but he could not call himself an athletic trainer (Ray, 2000). Two states have registration (National Athletic Trainers' Association, n.d.).

Only a handful of states have exemption status. Exemption means an athletic trainer is exempt from complying with the practice acts of other medical professions in that state. Other professions could include physicians, physical therapists, and physician assistants (Ray, 2000). Three states, Hawaii, Colorado, and Wyoming, have an exemption law (National Athletic Trainers' Association, n.d.).

Currently, six states do not have any form of regulation, although all six states are pursuing regulation (National Athletic Trainers' Association, n.d.). An athletic trainer practicing in a state without any form of regulation must be particularly careful to understand the state's medical practice act, seeking to understand the definition of the practice of medicine. An athletic trainer could easily appear to a jury to be practicing medicine if he makes a diagnosis or treats an injury. In *Georgia Physical Therapy, Inc. v. McCullough* (1996) a high school football player filed a complaint against his athletic trainer as a result of complications from an ingrown toenail. The plaintiff alleged that the treatment provided by the athletic trainer violated the state statute of practicing medicine without a license; the plaintiff believed the athletic trainer should have consulted the physician first. The case was appealed and the appeals court ruled for the defendant.

As recognized healthcare providers by the American Medical Association, athletic trainers have a responsibility to implement federal statutes within the collegiate athletic training room. The athletic trainer should demonstrate compliance with OSHA and HIPAA standards, as do other healthcare providers.

One federal statute unique to the collegiate athletic trainer as a healthcare professional is Title IX of the United States Code. Title IX applies to educational programs receiving federal aid, including public and private institutions, and covers

admission, recruitment, education programs and activities, course offerings and access, counseling, financial aid, employment assistance, facilities and housing, health and insurance benefits and services, scholarships, and athletics (Valentin, 1997). The application to the collegiate athletic trainer is health and insurance benefits and services with relation to equal medical care and treatment. In *Haffer v. Temple University* (1987) a class action lawsuit claimed, among other things, that athletic trainers gave preference to male athletes. The plaintiffs claimed that more athletic trainers were available to male teams and that women seeking treatment had to wait until the males were treated. The complaint also stated the athletic training room was sometimes used exclusively for men's teams and that athletic trainers arranged transportation to physician appointments for male athletes while women athletes were responsible for finding their own transportation. Temple University filed for summary motion; summary motion for this particular claim was denied.

Professional Organizations and Resources

Professional and credentialing organizations provide additional guidance in the standard of care through their development of standards of professional practice and position statements. These documents are produced by two different organizations representing athletic trainers and the public.

The National Athletic Trainers' Association Board of Certification, Inc. (BOC) produces two documents related to standards of professional practice. The first document is its' Standards of Professional Practice, which establishes the minimum standards essential to the practice of athletic training. The second document, the Role Delineation

Study, “identifies essential knowledge and skills for the athletic training profession which serves as a blueprint for examination development” (BOC, 2005).

The BOC is responsible for certifying “athletic trainers and to identify for the public, quality healthcare professional through a system of certification, adjudication, standards of practice and continuing competency programs” (BOC, n.d.b). Once an individual holds the ATC credential, the ATC must comply with the BOC Standards of Practice. These practice expectations for the credentialed ATC include knowledge and compliance with current local, state, and federal regulations and/or laws and utilizing “preventative measures to ensure the highest quality of care for every patient” (BOC, n.d.c). The *Standards of Practice* require an athletic trainer to practice under the direction of a physician.

The Role Delineation Study determines the “essential competency areas for a profession” (BOC, 2004, p. 1). The role delineation study also allows the BOC to verify that content on the examination reflects the tasks performed in the practice settings. The information is valuable in understanding current practices within the profession.

Position statements are published by a professional organization as a service to its members. The intent is to promote awareness of issues. Often the information contained in the position statement is neither exclusive nor exhaustive. Position statements often invoke a disclaimer about the information included as establishing a standard of care. However, the courts have determined that the standard of care is that of a reasonable and prudent person. The educational preparation of athletic trainers requires the students to be familiar with position statements and understand their utilization and implementation. A reasonable and prudent athletic trainer will remain current with the literature and new

and updated position statements, weaving them into their practice. Thus, the position statement with its disclaimer of not establishing a basis for care actually does become a standard of care.

Over the past five years the NATA has published several position statements covering topics such as lightning safety in athletics, management of asthma in athletics, and pre-hospital care of the spine-injured athlete. Each position statement provides guidance on providing care specific to each area and practical application into a policy and procedure manual.

Risk Management in Athletic Training

Unlike traditional healthcare facilities, 61.2% of higher education institutions have a risk manager and only 24.5% have a risk manager in athletics (Bodey & Moiseichik, 1999). The responsibility to analyze, identify, and manage risk in the athletic training room is then borne by the athletic trainer. In the ideal collegiate setting, a risk manager would be hired or a risk management committee would be established to manage the plan (Ammon, 2001; van der Smission, 1990). Budget constraints often prevent institutions from hiring a risk manager in athletic training. Time constraints and lack of interest or concern can prevent the formalization and interaction of a risk management committee. The end result is the assignment of additional responsibilities as a risk manager to an individual. In the collegiate athletic training room these responsibilities are borne by the head athletic trainer. The head athletic trainer must also be granted the authority to implement and enforce the policy and procedure manual. The responsibility as risk manager and assigned authority to enforce protocol may or may not be delineated in the job description of the head athletic trainer.

The Role Delineation study (BOC, 2004) delineated this responsibility in Domain V: Organization and Administration. Domain V is defined "as a series of plans, policies, and procedures by which ATCs organize the athletic training program to ensure responsive and efficient operation, in accordance with the BOC Standards of Practice and the NATA Code of Ethics" (p. 25) with six knowledge areas:

1. Establish action plans for response to injury or illness using available resources to provide the required range of healthcare services for patients, athletic activities, and events.
2. Establish policies and procedures for the delivery of healthcare services following accepted guidelines to promote safe participation, timely care, and legal compliance.
3. Establish policies and procedures for the management of healthcare facilities and activity areas by referring to accepted guidelines, standards, and regulations to promote safety and legal compliance.
4. Manage human and fiscal resources by utilizing appropriate leadership, organization, and management techniques to provide efficient and effective healthcare services.
5. Maintain records using an appropriate system to document services rendered, provide for continuity of care, facilitate communication, and meet legal standards.
6. Develop professional relationships with appropriate patients and entities by applying effective communication techniques to enhance the delivery of healthcare. (p 27-29)

The areas of knowledge within the domain are developed from the results submitted by a panel of experts and certified athletic trainers practicing in the field. The information provides feedback on importance, criticality, frequency, and point in the career that proficiency should be acquired. The current Role Delineation finds that athletic trainers rated Domain V as the lowest in importance and criticality, although an athletic trainer should be proficient after one year of experience. This information is interesting in that the literature indicates a thorough analysis and implementation of risks and development of policies and procedures is necessary for managing risk. Yet, certified athletic trainers identified organization and administration as the area of least importance and the area least critical to harm.

Thus, in addition to the role of the healthcare provider, the head athletic trainer must become a risk manager, knowledgeable in federal statutes, state statutes, case law, standards of practice, and position statements. As the primary risk manager, the head athletic trainer is responsible for establishing the standard of care for all individuals affiliated with that athletic training facility and training each of them. The head athletic trainer can have the supervisory responsibility for assistant athletic trainers, graduate assistant athletic trainers, athletic training students, and work study students.

A prudent athletic trainer should be certain that all supervised individuals are up-to-date on policies and procedures (Carpenter, 1995; van der Smissen, 1990). A negligence claim does not have to be filed against the individual who committed an act of omission or commission. The placement of blame can be transferred to the supervisor of the individual who committed the act through the doctrine of *respondeat superior*. In *O'Brien v. Township High School District* (1980) a student assistant athletic trainer for

football provided care for an athlete's knee abrasion by changing the bandage every day in the athletic training room. Complications arose in which the student athletic trainer did not have the knowledge or follow protocol in treating the complications. The athlete filed a complaint utilizing *respondeat superior*.

As Mitten (August 28, 2000) stated "An NCAA member must implement a cost-effective sports medicine program that adequately protects the health and safety of its student athletes". Part of risk management for the head athletic trainer involves weighing the risk, including harm and cost. Gallup (1995) addressed risk management planning in sports medicine through the four C's: (a) compassion, (b) communication, (c) competence, and (d) charting. In this particular plan, communication and compassion are emphasized. This emphasis is a result of studies concluding that 70% of lawsuits are filed as a result of "communication and attitude problems with the treating physician" (Gallup, 2005, p. 158).

Rankin and Ingersoll (2001) identified four areas of risk management for the athletic trainer: (a) assess preparation for the activity (PPE, field surface, practice conditions), (b) conduct of the activity (equipment, teaching technique, adequate breaks), (c) treatment of injures (evaluation, documentation, follow-up, supervision by MD, students), and (d) record keeping. (p. 168).

Leverenze and Helms (1990) indicated most case law involving athletic trainers has been filed over negligent actions and may be the primary risk for athletic trainers. Negligence can be a result of omission or commission. An athletic trainer who fails to provide care to an injury has demonstrated a negligent act of omission; omission is the failure to provide care. An athletic trainer who provides substandard care to injury has

demonstrated a negligent act of commission; commission is an act of poor care (Carpenter, 1995).

Risk management studies have been conducted on collegiate athletic programs. Gray and Crowell (1993) surveyed NCAA Division I athletic directors about risk management behaviors of the athletic program. Anderson and Gray (1994) completed a similar study of athletic directors at the NCAA Division III level. Brown and Sawyer's (1998) study followed with risk management behaviors at the NCAA Division II level. These studies examined conceptual areas of risk in athletic programs to the characteristics of the athletic director, such as educational background and experience as an athlete. Gray and McKinstrey (1994) examined risk management behaviors of head football coaches at the NCAA Division III level.

In 2001 Mickle examined case law related to athletic training. "This study developed a methodology to use case law as a risk management tool in developing policy and procedure recommendations" at the collegiate level for college athletic trainers. (p129). Twenty-two policy recommendations were derived from this method when applied to 21 cases applicable to the areas of emergencies, natural environment, and medical documentation. Mickle concluded the method could be difficult for the average professional, but more useful for professional leaders or educators.

Slack (2004) investigated whether important risk management health care practices vary according to the professional characteristics of the athletic training staff. The findings suggest few differences exist. Differences did exist when compared to staff size, level of competition, and whether policies and procedures existed in written form. Larger staff size resulted in greater compliance and participation in risk management

activities, as did athletic trainers in NCAA Division I institutions and those with written policies and procedures.

An athletic trainer assesses risk in almost all aspects of the job. It is unrealistic to identify and plan for all situations, as risks and hazards will always exist and injuries cannot be eliminated. However, the athletic training staff can develop a plan to provide the standard of care required and diminish the risk of and extent of injuries. This plan is often called a Policy and Procedure Manual and is synonymous with standard operating procedures and department operating procedures.

Policies and Procedures

Policies and procedures are an important and critical component of the risk management plan. Policies and procedures should identify activities, determine the management and maintenance of facilities, outline the supervision and administration of the program, and determine communication with involved parties (van der Smissen, 1990). A policy and procedure manual becomes the written form utilized as a risk management tool.

The process of developing a strong policy and procedure manual requires the athletic trainer to identify areas of potential risk. Examples include facility hazards, equipment hazards, lack of necessary equipment, and staffing. Once identified, each area should be evaluated for risk: what is the level of risk; what is the type of harm that could occur; and which areas can be minimized for risk and to what cost. Finally, the athletic trainer must manage each risk based upon the evaluation. The athletic trainer could fix the risk, minimize the risk, or transfer the risk. Liability of risk can be transferred to the athlete through waivers and assumption of risk forms. Liability of risk can also be

transferred to professional liability insurance or the employer's liability insurance (Carpenter, 1995).

According to Herbert (1995) a policy and procedure manual should include job responsibilities, define essential aspects of a program, outline services provided, and outline procedures. Forms that document services and procedures must be developed and included in the manual. All aspects of the manual, including documents, must be written with consideration for state statutes, federal statutes, professional standards of practice, case law, and position statements.

In certain situations, guidelines already exist in the management of injuries, care of illnesses, and maintenance of the facility. Individuals or organizations have assessed the risk associated with an activity and have developed best practices applicable for the activity. For example, Centers for Disease Control and Prevention (September 26, 2005) has developed protocol for handling blood and body fluids titled: *Bloodborne Pathogens in Healthcare Settings*.

For the athletic trainer, a policy and procedure manual provides guidance in the care of athletes and operation of the facility. Webster, Mason, and Keating (1992) identified the purpose to

> "define responsibilities and the scope of practice of athletic training; to define the relationship between the supervising physician, the certified athletic trainer and student trainer, if applicable; to define the athletic trainer's practice environment; and to define a method of assessing the quality of service rendered by the athletic trainer" (p. 3).

A policy and procedure manual is a risk management tool for the athletics administrator and the university. Once a policy and procedure manual is adopted it becomes imperative for athletic training personnel to be educated on and implement the material. A yearly in-service may be the method utilized to train and educate personnel, but it does not have to be the only method. However, this is a responsibility that falls to the athletic trainer designated to oversee risk management.

Unfortunately, this training may not be occurring. A study by Pitney, Ilsley, and Rintala (2002) examined socialization of NCAA Division I collegiate athletic trainers. A common theme identified by participants was a "lack of formal induction processes" (p. 66). Participants indicated that no formal training or orientation occurred related to job responsibilities. They learned by doing and often contacted previous mentors for guidance.

Failure to follow self-imposed policies and procedures may be considered negligent (Herbert, 1995). In the case of *Peacock vs. Samaritan Health Service* (1988) the court stated that hospital protocol provided some evidence of a standard of care and the failure to follow the self-imposed standard was negligence. For this reason, the athletic trainer designated as the risk manager should ensure formal and on-going education, training, and discussion about the manual.

Athletic Training Room as a Unique Healthcare Setting

The collegiate athletic training room is a unique healthcare setting within the healthcare profession. Practice acts and state statutes for athletic trainers vary widely and are non-existent in some states. Position statements are offered by the professional organization but studies indicate they are not utilized or implemented such as concussion

assessment and management (Notebaert & Guskiewicz, 2005). Federal statutes apply to athletic, such as HIPAA, OSHA, and Title IX, but research has identified some are not followed, such as administration and dispensation of medications (Kahanov, Furst, Johnson, & Roberts, 2003). What truly makes this setting unique is the lack of formal regulation or accrediting body for the collegiate athletic training room as a healthcare facility; this facility is borne from an educational and athletic environment, not a healthcare environment.

Conclusion

Risk management in the collegiate athletic training environment has been evaluated but often isolated to a specific item or characteristic. Risk management has not been evaluated in a holistic approach. Several studies were conducted on risk management behaviors of athletic directors and athletic programs that include one or two questions related to athletic training (Bodey & Moiseichik, 1999; Brown & Sawyer, 1998; Gray & Crowell, 1993). One study assessed risk management behaviors of NCAA Division III head football coaches (Gray & McKinstrey, 1994). Two studies evaluated risk management of high school athletic directors, coaches, or athletic trainers (Gould & Deivert, 2003; Gray & Parks, 1991; Hall & Kanoy, 1993).

In 2003 Petty examined emergency policies and procedures by NCAA Division I-A and Division I-AA athletic programs. In 2004 Slack investigated risk management health care practices in NCAA athletic programs related to professional characteristics of the athletic trainer. Mickle (2001) analyzed case law as a means to develop policy and procedure in athletic training. In 1989 Leverenz analyzed case law specific to athletic training education.

An athletic trainer can be educated on all the critical areas of risk management, standard of care, state and federal statutes, and position statements, but that does not mean the athletic trainer will implement and follow policies and procedures created from these areas. Some might argue that athletic trainers do not need regulation in the collegiate setting because it is already being done or it does not apply. This study describes the current risk management practices of collegiate athletic trainers, perceived risk management practices important to athletic trainers, the risk management responsibilities of the college athletic trainer, and the types of resources utilized in the development of a risk management plan by the collegiate athletic trainer.

CHAPTER THREE: METHODS

The purpose of this study was to identify and describe (a) risk management practices of collegiate athletic trainers, (b) perceived risk management practices important to the collegiate athletic trainer, (c) risk management responsibilities of the head athletic trainer, and (d) resources utilized by collegiate athletic trainers in the development of a risk management plan. This information establishes a baseline of current risk management practices in the collegiate athletic training setting for the profession of athletic training. The results of the study provide the foundation for identifying best practices in risk management, expanding the knowledge of practicing athletic trainers, and developing readily available resources in risk management. Therefore, this study sought to identify current risk management practices and perceptions of the collegiate athletic trainer.

Population and Sample

The target population for this study was athletic trainers employed by colleges and universities in the United States. Four year collegiate athletic departments compete in either the National Collegiate Athletic Association (NCAA) or the National Association of Intercollegiate Athletics (NAIA). Institutions compete in one of the associations broken down by NCAA Division I (326), NCAA Division II (282), NCAA Division III (419), and NAIA (282), for a total of 1309 colleges and universities. The sample size for this study was 600 (n=600) college athletic trainers from a population of 5,157 (N=5157) certified members of the National Athletic Trainers' Association (NATA) who identified an employment setting of university and college.

Design

The names of 600 athletic trainers were randomly selected from a list of 5,157 certified athletic trainers who were current members of the NATA with a membership type of *certified* and were living within the United States; Canada was not included. These individuals also identified an employment setting of university or college.

An email containing the cover letter and link to the survey was distributed to the random sample of athletic trainers (Appendix A). The electronic cover letter explained the purpose of the study, Institutional Review Board (IRB) approval (Appendix B), and voluntary participation in the study. One week later a follow-up email containing the cover letter and link to the survey was sent. Two weeks after the initial email, a third email containing the cover letter and link to the survey was sent. Three weeks after the initial email, a paper cover letter and survey were mailed through the United States Postal Service (USPS) to the random sample of athletic trainers. The cover letter explained the purpose of the study, IRB approval, and voluntary participation in study. A self-addressed, stamped envelope was included with the cover letter and survey.

Instrumentation

The researcher designed the survey instrument to explore risk management practices and sent it to athletic trainers in four year colleges and universities. The survey was divided into four parts (Appendix C).

Items in Part I addressed risk management practices as related to policies and procedures. Policy and procedure items were divided into 13 categories: (a) periodic review, (b) consultation, (c) periodic in-services of policies, (d) periodic in-services for personnel, (e) methods for insuring against loss, (f) participation and consent of athletes,

(g) emergencies, (h) care and treatment of injuries and conditions, (i) safety inspection and investigation, (j) supervision, (k) elimination of potential risk, (l) goals and objectives, and (m) administrative responsibilities. Specific examples were listed under each category. Participants were asked to respond to each example in the category regarding the operation of the practice and written form and the perceived importance. A scale of 1-4 was used for both responses. In the first section, operation of the practice and written form, the scale of 1-4 was utilized with 1 being 'the practice is in operation and it appears in written form' to 4 being 'the practice is not in operation and does not appear in written form'. In the second section, perceived importance, the scale of 1-4 was utilized with 1 being 'very important risk management practice for the department' and 4 being 'not important risk management practice for the department'.

Part II involved demographic information related to the participant and employment setting. Questions were written for fill in the blank or select the most appropriate response.

Items in Part III addressed the development of the policy and procedure manual. The participant was asked to select the most appropriate response.

Part IV listed professional statements, national standards, federal and state law, case law, and other statements or guidelines related to the profession that could be utilized in a policy and procedure manual. The participant was asked to select all that apply. Two items were written to identify the beliefs of the participant regarding national standards on policy and procedure development and accreditation of athletic training facilities. The participant was asked to select the most appropriate response to both items.

Validation of Instrument

Once the questionnaire was developed, the written survey instrument was pilot tested for content, or face, validity. Ten experts in the field of athletic training with an employment setting in the college and university arena were asked to respond to each question of the survey, providing feedback and clarity of each item. Experts included program directors, head athletic trainers, and assistant athletic trainers from across the United States. All experts had at least five years of experience as a head or assistant athletic trainer in the collegiate setting.

Instrument Reliability

Reliability of the survey instrument was established through a test-retest. Ten college and university athletic trainers were sent the survey instrument in the electronic format. One week later the same individuals received the same form of the survey instrument in the electronic format to complete again. A test-retest mean and Cronbach's Alpha analysis were completed after the data were collected.

Data Collection and Analysis

This study was a descriptive case study. Therefore the study utilized descriptive statistics, means, frequencies, and percentages to report results.

Data for research question #1 were obtained from analysis of Part I: questions 1-76: section A on the survey instrument. The choices for this section consisted of a scale from 1-4. Frequencies, percentages, and mathematical means were calculated for the sub-categories.

Data for research question #2 were obtained from analysis of Part I: questions 1-76: section B on the survey instrument. The choices for this section consisted of a scale from 1-4. Frequencies, percentages, and mathematical mean were calculated for the sub-categories.

Data for research question #3 were obtained from a comparison analysis of Part I: questions 1-76: section A to Part I: questions 1-76: section B on the survey instrument. The mathematical means from each section were compared.

Data for research question #4 were obtained from analysis of Part III: questions 93-95 on the survey instrument. The choices under Part III consisted of Yes/No questions and selection of the most appropriate response. Frequencies and percentages were calculated for both types of questions.

Data for research question #5 were obtained from analysis of Part IV on the survey instrument. The choices under Part IV consisted of a list from which frequencies and percentages were obtained.

CHAPTER FOUR: RESULTS

The purpose of this study was to identify and describe (a) risk management practices of collegiate athletic trainers, (b) perceived risk management practices important to the collegiate athletic trainer, (c) risk management responsibilities of the head athletic trainer, and (d) resources utilized by collegiate athletic trainers in the development of a risk management plan.

Validity of the Instrument

The survey instrument was pilot tested for content, or face, validity. Ten experts in the field of athletic training with an employment setting in the college and university arena were asked to respond to each question of the survey, providing feedback and clarity of each item. Experts included program directors, head athletic trainers, and assistant athletic trainers from across the United States. All experts had at least five years of experience as a head or assistant athletic trainer in the collegiate setting. Based upon the suggestions of the experts, additions, deletions, and modifications of items within the survey were made.

Reliability of the Instrument

Reliability of the survey instrument was established through a test-retest. Ten college and university athletic trainers were contacted and asked to the complete the survey in the electronic format. One week later the same individuals were asked to complete the same form again. Six athletic trainers completed both the initial instrument and the follow-up instrument. Cronbach's alpha was administered on the data for internal consistency. Cronbach's alpha for operation of risk management practices was .71 and

.90 for Test I and Test II, respectively. Cronbach's alpha for perceived importance of risk management practices was .93 and .92 for Test I and Test II, respectively. The test-retest mean for overall reliability for operation of risk management practices was .70. The test-retest mean for overall reliability for perceived importance of risk management practices was .70.

Study Design

The Athletic Training Risk Management Practices Questionnaire obtained data related to the following variables: risk management practices in a policy and procedure manual, perceived importance of risk management practices, demographic information, risk management responsibilities of the head athletic trainer, and resources utilized in the development of a risk management plan. Policy and procedure items were divided into 13 categories: (a) periodic review, (b) consultation, (c) periodic in-services of policies, (d) periodic in-services for personnel, (e) methods for insuring against loss, (f) participation and consent of athletes, (g) emergencies, (h) care and treatment of injuries and conditions, (i) safety inspection and investigation, (j) supervision, (k) elimination of potential risk, (l) goals and objectives, and (m) administrative responsibilities. Potential resources utilized in the development of the polices and procedures were separated into six categories: (a) professional position statements, (b) standards of practice, (c)federal regulations, (d) case law, (e) state licensure laws, and (f) National Collegiate Athletic Association (NCAA) or National Association of Intercollegiate Athletics (NAIA) Sports Medicine Handbooks.

A random sample of 600 (n=600) college athletic trainers was obtained for this study from a population of 5,157 (N=5157) certified members of the National Athletic

Trainers' Association (NATA) who identified an employment setting of university and college. Participants were contacted via email and United States Postal Service (USPS) mailing. Materials consisted of a cover letter and survey instrument.

Results

Of the 600 participants, 156 participants were excluded; 4 were part of the pilot study or panel of experts, 19 instruments were returned due to insufficient or incorrect address, 9 declined to participate, and 124 participants were identified as educators who were not involved directly in the collegiate athletic training room. From this sample size of 444 (n=444), 229 surveys were returned for a response rate of 51%. A total of 206 responses were completed via email and 23 responses were completed and returned via USPS. As a descriptive study in the current risk management practices of college athletic trainers, not all parts of the survey were completed by all of the participants. For example, when examining the current resources utilized in the policy and procedure manual, individuals would not be able to respond to this section if they did not have a written policy and procedure manual.

Demographics

Participants in this study had a mean of 10.9 years of certification as an athletic trainer, with a range of 2 to 39 years. The mean number of years in the current position was 5.6 with a range of 1 to 33 years. In their current employment setting, college athletic trainers provide coverage for 16.1 varsity teams with a range of 5 to 38 teams and 378.1 athletes with a range of 65 to 1000. Findings revealed the athletic training department staff consisted of 3.9 full-time athletic trainers with a range of 1 to 12 full-

time athletic trainers, 0.58 part-time athletic trainers with a range of 0 to 7 part-time athletic trainers, 0.51 interns with a range of 0 to 10 interns, and 1.4 graduate assistants with a range of 0 to 10 graduate assistants. These demographic data are presented in Table 1.

Table 1

Descriptive Information of Participants

	N	Minimum	Maximum	*M*	*SD*
Years certified	123	2	39	10.9	7.3
Years at current job	124	1	33	5.6	6.0
# of varsity teams	123	5	38	16.1	5.5
# of Varsity Athletes	121	65	1000	378.1	190.7
# of full-time ATC	124	1	12	3.9	2.7
# of part-time ATC	122	0	7	0.6	1.1
# of interns	122	0	9	0.5	1.3
# of graduate assistants	122	0	10	1.4	2.3

Participants in this study identified the level of participation of the varsity athletic teams at their place of employment. Of the 122 participants who responded, the institutional division was: 43 (35.2%) from NCAA Division I, 27 (22%) from NCAA Division II, 39 (32%) from NCAA Division III, and 13 (10.7%) from NAIA. The data are presented in Table 2.

Table 2

Level of Collegiate Participation At Respondents' Employment Setting

	N	%
NCAA Division I	43	35.3
NCAA Division II	27	22
NCAA Division III	39	32
NAIA	13	10.7

Participants were asked to identify their current job position. Of the 123 responses, 59 (48%) described their position as Head Athletic Trainer and 64 (52%) as an Assistant Athletic Trainer.

Participants were asked to identify if their institution sponsored a Commission on Accreditation of Athletic Training Education (CAATE) accredited athletic training education program and if a written policy and procedure manual existed. Of the 124 participants responding, 59 (48%) athletic trainers indicated employment at an institution sponsoring a CAATE-accredited athletic training education program and 104 (83.9%) indicated the department has a written policy and procedure manual.

Research Question #1

Research question 1 addressed the extent to which collegiate athletic training departments engage in risk management practices. Items in Part I of the survey addressed risk management practices related to policies and procedures. In part one, 13 categories were identified with respect to policies and procedures: (a) periodic review, (b) consultation, (c) periodic in-services of policies, (d) periodic in-services for

personnel, (e) methods for insuring against loss, (f) participation and consent of athletes, (g) emergencies, (h) care and treatment of injuries and conditions, (i) safety inspection and investigation, (j) supervision, (k) elimination of potential risk, (l) goals and objectives, and (m) administrative responsibilities. Specific examples were listed under each category and participants were asked to respond regarding the operational use and written form of the practice. A scale of 1-4 was utilized, with 1 being 'the practice is in operation and it appears in written form', 2 being 'the practice is in operation but it does not appear in written form', 3 being 'the practice is not in operation but it does appear in written form', and 4 being 'the practice is not in operation and it does not appear in written form'.

The first category, periodic reviews of policies and procedures provided examples such as review of policy and procedure, timelines for the review of the policy and procedure, and documentation of the review of the policy and procedure. Thirty five and three tenths percent indicated periodic reviews in both operation (use) and written form, 32.3% indicated period review was only in operation, 25.3% indicated period reviews did not appear in operation or in written form, and 7.1% responded with written form only. These data are included in Table 3.

Table 3

Periodic Review of Policies & Procedures (n=169)

Operation & written	Operation only	Written only	Neither
35.3%	32.3%	7.1%	25.3%

Table 4 identifies the responses athletic trainers selected when consulting others in the development of policies and procedures. Examples in the second category included institutional legal counsel, insurance counselor, athletic director, team physician, and other athletic trainers. The category of operation only was selected 44.3% of the time, 33.1% indicated this category was in operation and in writing, 18.6% did not have this in writing or in operation, and 3.9% indicated this category was in writing only.

Table 4

Consults Others When Developing Policies and Procedures (n=166)

Operation & written	Operation only	Written only	Neither
33.1%	44.3%	3.9%	18.6%

The third category, periodic in-services on specific policies and procedures, included Health Insurance Portability and Accountability Act (HIPAA), Occupational Safety and Health Administration (OSHA), Bloodborne pathogen exposure control plan, Cardiopulmonary Resuscitation/Automated External Defibrillator (CPR/AED) training, and communicable disease and illness of the athletic trainer as examples. When asked about establishing periodic in-services on specific policies and procedures, 54.0% responded this was in operation and in writing, 26.1% marked operation only, 15.9% marked neither in writing or in operation, and 4.0% indicated the practice was in writing only. This information is provided in Table 5.

Table 5

Periodic In-service of Policies and Procedures (n=167)

Operation & written	Operation only	Written only	Neither
54.0%	26.1%	4.0%	15.9%

Athletic trainers were asked about established periodic in-services for personnel. Examples in this fourth category included: full time staff, part time staff, graduate assistants, supervisor, students, volunteers, and team physicians. The highest response was neither in operation nor in writing with 43%. The second highest response was operation only with 27.7%. The third highest was operation and written form with 26.1%. The lowest response marked was written form only with 3.2%. The data are shown in Table 6.

Table 6

Periodic In-service of Personnel (n=156)

Operation & written	Operation only	Written only	Neither
26.1%	27.7%	3.2%	43.0%

The fifth category dealt with methods of providing insurance against risk. Examples included secondary insurance for athletes, catastrophic insurance for athletes, and liability insurance for athletic trainers. As identified in Table 7, the highest response for this category was in operation and written form with 79.1%, 10.9% indicated this

category was neither in writing nor in operation, 9.4% responded with operation only, and 0.6% selected in category was in written form only.

Table 7

Established Methods of Providing Insurance Against Risk (n=157)

Operation & written	Operation only	Written only	Neither
79.1%	9.4%	0.6%	10.9%

The sixth category addressed policies and procedures regarding participation and consent of athletes with examples of assumption of risk, confidentiality and security, release of information, pre-participation examination, consent to treat, prospective athlete and recruit waivers, and pre-existing conditions. Operation and written form was indicated 86.4%, followed by 7.3% with neither, 5.6% with operation only, and 0.7% with written only. Table 8 represents this data.

Table 8

Policies and Procedures Regarding Participation and Consent of Athletes (n=158)

Operation & written	Operation only	Written only	Neither
86.4%	5.6%	0.7%	7.3%

The seventh category addressed policies and procedures for handling emergencies, and included examples of emergency plans for each sport, concussions,

spinal cord injury, helmet and shoulder pad removal, asthma, heat illness, and inclement weather conditions. Operation and written form was indicated by 57.8%, followed by 34% with operation only, 7.3% with neither, and 0.9% with written only. Data are presented in Table 9.

Table 9

Policies and Procedures for Handling Emergencies (n=153)

Operation & written	Operation only	Written only	Neither
57.8%	34.0%	0.9%	7.3%

The eighth category addressed policies and procedures for care and treatment of injuries and conditions. Examples included physician referrals, wound care, return to play guidelines, pregnancy, disordered eating, substance abuse, prescription and over the counter drug storage and administration, rehabilitation, and treatment. Operation and written form was indicated 46.1%, followed by 41.4% with operation only, 11.0% with neither, and 1.5% with written only. The data are presented in Table 10.

Table 10

Policies and Procedures for Care and Treatment of Injuries and Conditions (n=153)

Operation & written	Operation only	Written only	Neither
46.1%	41.4%	1.5%	11.0%

The ninth category asked participants about routine safety inspection and investigation. Examples included facility cleaning, ground fault interrupters, and equipment calibration and inspection. Operation and written form was indicated 53.6%, followed by 41.4% for operation, 3.6% with neither, and 1.4% with written only. The data are presented in Table 11.

Table 11

Routine Safety Inspection and Investigation (n=152)

Operation & written	Operation only	Written only	Neither
53.6%	41.4%	1.4%	3.6%

The tenth category, plan for supervision, included facility rules, hours of operation, practice coverage, home event coverage, away event coverage, non-traditional season and individual practice coverage, JV and alumni event coverage, and tryout coverage of recruits. Planned supervision in operation and written form was indicated 66.3%, followed by 23.6% who marked operation only, 8.4% marked neither operation nor written form, and 1.7% chose written form only. Table 12 represents the data.

Table 12

Plan for Supervision (n=140)

Operation & written	Operation only	Written only	Neither
66.3%	23.6%	1.7%	8.4%

Category 11 addressed the professional, state, and local codes, rules, and regulations. Operation and written form was indicated 67.6%, 26.6% in operation only, 3.1% in written form only, and 2.7% had neither operation nor written form. Table 13 represents the data.

Table 13

Conforms to Professional, State, and Local Codes, Rules and Regulations (n=137)

Operation & written	Operation only	Written only	Neither
67.6%	26.6%	3.1%	2.7%

Category 12 addressed goals and objectives met through risk management efforts. Items in this category included philosophy, mission, harassment, discrimination, and patient rights. Operation and written form was selected 62.3%, 22.5% chose operation only, 13.8% chose neither operation nor written form, and 1.4% chose written form only. The data are presented in Table 14.

Table 14

Goals and Objectives Met Through Risk Management Efforts (n=140)

Operation & written	Operation only	Written only	Neither
62.3%	22.5%	1.4%	13.8%

The final category addressed designated policies and procedures for administrative responsibilities. Items in this category were job responsibility for the athletic trainers, job responsibility for the team physician, job responsibility for the students or volunteers, job responsibility for graduate assistants, job responsibility for the designated risk manager, inventory, purchasing, medical documentation, dress code, visiting team information, and drug testing. Operation and written form was selected 64.3%, followed by 20.8% for operation only, 14% for neither operation nor written form, and 0.8% for written form only. The data are located in Table 15.

Table 15

Designated Policies and Procedures for Administrative Responsibilities (n=140)

Operation & written	Operation only	Written only	Neither
64.3%	20.8%	0.9%	14.0%

Ideally, athletic training departments would address all areas in a policy and procedure manual, both in written form and implementing the written form in operation. Table 16 ranks the 13 categories with respect to the policies and procedures in operation and in writing. This information would suggest athletic training departments have not established consistent policies and procedures in both written form and implementation through the use of the written policy and procedure. Not only is there inconsistency with policies and procedures, but 35.3% of the athletic trainers within the collegiate athletic training environment had established guidelines for the periodic review of the policies and procedures and only 26.1% of college athletic trainers had a periodic in-service with

personnel on the policies and procedures reported to be implemented in their various forms. The extent to which athletic training departments across the United States engage in risk management practices varies.

As healthcare professionals, athletic trainers have a duty to provide a standard of care. Failure to conform to a standard of care leaves the patient at risk of harm and the athletic trainer liable for his actions (or lack of actions), and the institution liable as the employer of the athletic trainer and the sponsor of the varsity sport. Risk management tools, in the form of written policies and procedures is a means to manage risk through consistent standards of care. Inconsistent use of policies and procedures could imply a standard of care that is not that of an ordinary, reasonable, and prudent athletic trainer.

Table 16

Rank Order of Policies and Procedures in Operation and Written Form

	n	% response
Participation and Consent	158	86.4%
Methods of Providing Insurance	157	79.1%
Conform to Professional, State, and Local Codes	137	67.6%
Plan for Supervision	140	66.3%
Administrative Responsibilities	140	64.3%
Goals and Objectives	140	62.3%
Handling Emergencies	153	57.8%
Periodic In-service of Policies and Procedures	167	54.0%
Safety Inspection	152	53.6%
Care and Treatment of Injuries & Conditions	153	46.1%
Periodic Review of Policies and Procedures	169	35.3%
Consults Others	166	33.1%
Periodic In-service with Personnel	156	26.1%

Research Question #2

Research question 2 addressed what collegiate athletic trainers perceive to be important risk management practices for inclusion in a policy and procedure manual. Items in the second section of Part I of the survey addressed the perceived importance of risk management practices as related to policies and procedures. In Part I of the survey, 13 categories were identified with respect of policies and procedures: (a) periodic

review, (b) consultation, (c) periodic in-services of policies, (d) periodic in-services for personnel, (e) methods for insuring against loss, (f) participation and consent of athletes, (g) emergencies, (h) care and treatment of injuries and conditions, (i) safety inspection and investigation, (j) supervision, (k) elimination of potential risk, (l) goals and objectives, and (m) administrative responsibilities. Specific examples were listed under each category and participants were asked to respond the perceived importance of the categories. A scale of 1-4 was utilized, with 1 being 'very important practice for the department', 2 being 'important practice for the department', 3 being 'somewhat important practice for the department', and 4 being 'not important practice for the department'.

The first category, periodic reviews of policies and procedures, provided examples such as review of policy and procedure, timelines for the review of the policy and procedure, and documentation of the review of the policy and procedure. As presented in Table 17, 34.2% of athletic trainers perceive periodic review of policies and procedures to be a very important practice for the department, 40.8% identified it as an important practice for the department, 18.8% identified as being somewhat important, and 6.2% selected not important.

Table 17

Perceived Importance of Periodic Review of Policies and Procedures (n=134)

Very important	Important	Somewhat important	Not important
34.2%	40.8%	18.8%	6.2%

Table 18 identifies the perceptions athletic trainers selected when consulting others in the development of policies and procedures. Examples in the second category included institutional legal counsel, insurance counselor, athletic director, team physician, and other athletic trainers. The consultation of others is perceived to be very important by 58.6%, 28.4% selected important, 10.1% indicated somewhat important, and 2.9% selected not important.

Table 18

Perceived Importance of Consulting Others When Developing Policies and Procedures (n=135)

Very important	Important	Somewhat important	Not important
58.6%	28.4%	10.1%	2.9%

The third category, periodic in-services on specific policies and procedures, included HIPAA, OSHA, Bloodborne pathogen exposure control plan, CPR/AED training, and communicable disease and illness of the athletic trainer as examples. When asked about their perceptions of periodic in-services on specific policies and procedures, 65% responded with very important, 28% marked important, 4.8% marked somewhat important, and 2.2% marked not important. This information is provided in Table 19.

Table 19

Perceived Importance of Periodic In-service of Policies and Procedures (n=129)

Very important	Important	Somewhat important	Not important
65.0%	28.0%	4.8%	2.2%

Table 20 contains the responses from athletic trainers when asked about the perceived importance of periodic in-services for personnel. Examples in this fourth category included: full time staff, part time staff, graduate assistants, supervisor, students, volunteers, and team physicians. Within this category 42.3% perceive periodic in-services for personnel to be a very important practice, 32.9% selected important, 16% selected somewhat important, and 8.8% selected not important.

Table 20

Perceived Importance of Periodic In-service of Personnel (n=127)

Very important	Important	Somewhat important	Not important
42.3%	32.9%	16.0%	8.8%

The fifth category dealt with methods of providing insurance against risk. Examples included secondary insurance for athletes, catastrophic insurance for athletes, and liability insurance for athletic trainers. As identified in Table 21, 77.8% perceive this to be a very important risk management practice, 15.8% selected important, 3.5% selected somewhat important, and 2.9% selected not important.

Table 21

Perceived Importance of Methods of Providing Insurance Against Risk (n=125)

Very important	Important	Somewhat important	Not important
77.8%	15.8%	3.5%	2.9%

The sixth category addressed policies and procedures regarding participation and consent of athletes as presented in Table 22, with examples of assumption of risk, confidentiality and security, release of information, pre-participation examination, consent to treat, prospective athlete and recruit waivers, and pre-existing conditions. Within this category 79.9% perceived this to be a very important risk management practice, followed by 15% as important, 3.3% as somewhat important, and 1.8% as not important.

Table 22

Perceived Importance of Policies and Procedures Regarding Participation and Consent of Athletes (n=127)

Very important	Important	Somewhat important	Not important
79.9%	15.0%	3.3%	1.8%

Table 23 addresses the category of policies and procedures for handling emergencies, and included examples of emergency plans for each sport, concussions, spinal cord injury, helmet and shoulder pad removal, asthma, heat illness, and inclement

weather conditions. Established policies and procedures for handling emergencies was perceived to be very important for 77.0% of collegiate athletic trainers, followed by 18.9% as important, 2.7% as somewhat important, and 1.4% as not important.

Table 23

Perceived Importance of Policies and Procedures for Handling Emergencies (n=124)

Very important	Important	Somewhat important	Not important
77.0%	18.9%	2.7%	1.4%

Table 24 represents data on the eighth category on policies and procedures for care and treatment of injuries and conditions. Examples included physician referrals, wound care, return to play guidelines, pregnancy, disordered eating, substance abuse, prescription and over the counter drug storage and administration, rehabilitation, and treatment. Policies and procedures for care and treatment of injuries and conditions was perceived to be very important by 52.3%, followed by 35.8% perceive it to be important, 8.7% as somewhat important, and 3.2% as not important.

Table 24

Perceived Importance of Policies and Procedures for Care and Treatment of Injuries and Conditions (n=127)

Very important	Important	Somewhat important	Not important
52.3%	35.8%	8.7%	3.2%

The ninth category, routine safety inspection and investigation, is provided in Table 25. Examples included facility cleaning, ground fault interrupters, and equipment calibration and inspection. Routine safety inspections and investigations is perceived as very important by 61.9%, followed by 32.1% for important, 5.2% for somewhat important, and 0.8% for not important.

Table 25

Perceived Importance of Routine Safety Inspection and Investigation (n=126)

Very important	Important	Somewhat important	Not important
61.9%	32.1%	5.2%	0.8%

The tenth category, plan for supervision, included facility rules, hours of operation, practice coverage, home event coverage, away event coverage, non-traditional season and individual practice coverage, JV and alumni event coverage, and tryout coverage of recruits. As indicated in Table 26, 53% of athletic trainers perceive a plan of supervision as very important, 31.4% as important, 11.0% as somewhat important, and 4.6% as not important.

Table 26

Perceived Importance for Plan of Supervision (n=122)

Very important	Important	Somewhat important	Not important
53.0%	31.4%	11.0%	4.6%

Category eleven addresses the professional, state, and local codes, rules, and regulations. As presented in Table 27, 72.6% of athletic trainers perceive this to be a very important risk management practice, 20.8% as important, and 6.6% as somewhat important. None of the participants perceived this category to be not important.

Table 27

Perceived Importance of Conforming to Professional, State, and Local Codes, Rules and Regulations (n=122)

Very important	Important	Somewhat important	Not important
72.6%	20.8%	6.6%	0.0%

Category twelve addressed goals and objectives met through risk management efforts. Items in this category included philosophy, mission, harassment, discrimination, and patient rights. As presented in Table 28, 48.1% of athletic trainers perceived this category to a very important risk management practice, followed by 36.2% as important, 12.6% as somewhat important, and 3.1% as not important.

Table 28

Perceived Importance of Goals and Objectives Met Through Risk Management Efforts (n=122)

Very important	Important	Somewhat important	Not important
48.1%	36.2%	12.6%	3.1%

The final category addressed designated policies and procedures for administrative responsibilities. Items in this category were job responsibility for the athletic trainers, job responsibility for the team physician, job responsibility for the students or volunteers, job responsibility for graduate assistants, job responsibility for the designated risk manager, inventory, purchasing, medical documentation, dress code, visiting team information, and drug testing. As presented in Table 29, 42.3% of athletic trainers perceive this category to be a very important risk management practice, 34.8% as important, 12.5% as somewhat important, and 10.4% as not important.

Table 29

Perceived Importance of Designated Policies and Procedures for Administrative Responsibilities (n=122)

Very important	Important	Somewhat important	Not important
42.3%	34.8%	12.5%	10.4%

Athletic trainers perceive categories two through thirteen to be very important risk management practices over important, somewhat important, and not important. Athletic trainers perceive category one, periodic review of policies and procedures, as an important risk management practice. Athletic trainers perceive all categories to be important or very important risk management practices, with percentages at or above 75%, as presented in Table 30.

The data suggest college athletic trainers perceive all thirteen categories to be important or very important risk management practices to be included in a risk

management plan covered in collegiate athletic training policy and procedure manuals. This data suggest athletic trainers, as healthcare professionals, recognize the importance of risk management practices.

Table 30

Perceptions of Important and Very Important Risk Management Practices

	n	% response
Care and treatment of injuries and conditions	127	96.7%
Handling emergencies	124	96.0%
Participation and consent	127	94.9%
Safety inspection	126	94.0%
Methods of providing insurance	125	93.6%
Conform to professional, state, and local codes	122	93.4%
Periodic in-service of policies and procedures	129	93.0%
Consults others	135	87.0%
Plan for supervision	122	84.4%
Goals and objectives	122	84.4%
Administrative responsibilities	122	77.1%
Periodic review of policies and procedures	134	76.0%
Periodic in-service with personnel	127	75.1%

Research Question #3

Research question 3 examined the extent to which collegiate athletic training policy and procedure manuals address important risk management topics. Nonparametric means (Appendix D) were compared between section one, operation and written form, and section two, perceived importance, within Part I of the survey instrument using a two-tailed Spearman Rho correlation coefficient.

A significant moderate correlation was identified in the categories of consulting others in the development of policies and procedures and methods of providing insurance (r_s=.45, p<.01). A significant, but weak correlation was indicated in the remaining eleven categories, ranging from r_s=.0.25 to r_s=.0.39, p<.01, as presented in Table 31.

Table 31

Spearman Rho Correlation of Operational and Written Form to Perceived Importance of Policies and Procedures

	Spearman rho correlation coefficient	*p**
Periodic review of policies and procedures	0.35	<0.01
Consult others	0.45	<0.01
Periodic in-service of policies and procedures	0.39	<0.01
Periodic in-service with personnel	0.39	<0.01
Methods of providing insurance	0.45	<0.01
Participation and consent	0.25	<0.01
Handling emergencies	0.37	<0.01
Care and treatment of injuries and conditions	0.31	<0.01
Safety inspection	0.37	<0.01
Plan for supervision	0.28	<0.01
Conform to professional, state, and local codes	0.25	<0.01
Goals and objectives	0.36	<0.01
Administrative responsibilities	0.34	<0.01

* Correlation is significant at the 0.01 level (two-tailed)

This information would suggest there is a significant relationship between the perceived importance of categories in a policy and procedure manual and the operation and written form of the policy and procedure manual. The higher the perceived importance of a category the more likely the college athletic trainer has established the category in operation and written form.

Research Question #4

Research question 4 sought to address to the extent of responsibility of head athletic trainers in the development and implementation of the risk management practices in the collegiate athletic training room. Demographically, head athletic trainers accounted for 59 (48%) of the respondents. Table 32 presents the descriptive information of this group. Head athletic trainers had a mean of 14 years of certification as an ATC, with a range of three years to 39 years. The mean number of years in the current position was 7.5, ranging from one year to 33 years. Findings revealed the head athletic trainers worked with a staff consisting of 3.0 full-time athletic trainers with a range of 1 to 11, 0.48 part-time athletic trainers with a range of 0 to 4, 0.69 interns with a range of 0 to 9, and 0.78 graduate assistants with a range of 0 to 10.

Table 32

Descriptive Statistics of Head Athletic Trainers

	N	Minimum	Maximum	*M*	*SD*
Years certified	59	3.0	39.0	14.0	±7.9
Years in current job	59	1.0	33.0	7.5	±7.6
# of varsity teams	59	5.0	28.0	14.5	±5.6
# of varsity athletes	58	65.0	1000.0	339.8	±194.6
# of full-time ATs	59	1.0	11.0	3.0	±2.3
# of part-time ATs	59	0.0	4.0	0.5	±0.8
# of interns	59	0.0	9.0	0.7	±1.7
# of graduate assistants	59	0.0	10.0	0.8	±1.9

Table 33 presents the frequency of CAATE programs and the existence of written policy and procedure manuals as indicated by head athletic trainers. Data reveal 20 (33.9%) head athletic trainers were employed at an institution sponsoring a CAATE-accredited athletic training education program while 47 (80%) indicated the department has a written policy and procedure manual.

Table 33

Institutions Sponsoring CAATE Programs & Existing Policy and Procedure Manual

	Frequency	Percent
CAATE Program		
Yes	20	33.9%
No	39	66.1%
Written P&P Exists		
Yes	47	79.7%
No	12	20.3%

The Athletic Director was the immediate supervisor for 39 (66.1%) of head athletic trainers, while 11 (18.6%) reported an immediate supervisor of the Assistant Athletic Director and 9 (15.3%) indicated a different supervisor, such as a department chair, dean, or other.

Table 34 identifies the level of participation of the varsity athletic teams of the institution where the head athletic trainer was employed. Institutional Division was: 10

(17.2%) from NCAA Division I, 18 (31%) from NCAA Division II, 19 (32.8%) from NCAA Division III; and 11 (19%) from NAIA.

Table 34

Level of Athletic Participation where Head Athletic Trainer is Employed

	Frequency	Percent
NCAA Division I	10	17.2%
NCAA Division II	18	31%
NCAA Division III	19	32.8%
NAIA	11	19%

Survey questions 88-90 addressed the development, implementation, and management related to the policies and procedure manual outlined in Research Question 4. When asked if a policy and procedure manual existed when the individual became the head athletic trainer, 17 (28.8%) indicated yes and 42 (71.2%) indicated no.

For the 17 that responded affirmatively, they were asked to choose the most appropriate response of action. Of those responding, three (17.7%) adopted the existing policy and procedure manual, 12 (70.6%) made changes to the existing policy and procedure manual, and 2 (11.8%) created a new policy and procedure manual.

For the 42 that responded negatively, 28 (68.3%) developed a new policy and procedure manual, 1 (2.4%) assigned the task of developing the policy and procedure manual to someone else, 6 (14.6%) did not develop a policy and procedure manual and an additional 6 (14.6%) indicated they did something other than the items listed above.

Frequency from these survey questions indicated that 42 (71.9%) of head athletic trainers developed or made changes to the policy and procedure manual when they became a head athletic trainer. The data suggest head athletic trainers serve in the capacity of risk manager for the athletic training room, in addition to their other duties and responsibilities. This is different from other health care professions, where an individual is hired or a committee is formed specifically to serve in the capacity of risk manager.

Research Question #5

Research question #5 identified the types of resources collegiate athletic training departments utilize in developing policies and procedures. Survey question 91 sought to identify the items which were utilized in the policy and procedure manual. Items on the list were grouped into areas, which included (a) professional position statements, (b) standards of practice, (c) federal regulations, (d) case law, (e) state licensure laws, and (f) NCAA or NAIA Sports Medicine Handbooks. Participants were asked to select all that apply. The highest frequency within a group was the professional position statements, with a frequency of 742 (21.6%). The other groups were, in order, state licensure laws 48 (21%), standards of practice 90(19.7%), NCAA or NAIA Sports Medicine Handbooks 79 (17.2%), federal regulations 149 (9.3%), and case law 49 (1.8%). An additional 6 participants (2.6%) indicated using other resources. Table 35 represents the data.

Table 35

Categories of Resources Utilized by Collegiate Athletic Training Departments in Developing Policies and Procedures

	n	%
Professional position statements	742	21.6%
State licensure laws	48	21.0%
Standards of practice	90	19.7%
NCAA/NAIA sports medicine handbooks	79	17.2%
Federal regulations	149	9.3%
Case law	49	1.8%
Other	6	2.6%

Individual items from the entire list were ranked by frequency as listed in Table 36. The highest frequency reported was the National Athletic Trainers' Association (NATA) Position Statement: Lightning Safety for Athletics and Recreation, with a frequency of 81 (35.4%). The second and third highest frequency was OSHA Regulations (Standards-29CFR) Bloodborne Pathogens – 1910.1030 and the 2006-07 NCAA Sports Medicine Handbook, with a frequency of 72 (31.4%) for each. The fourth highest frequency reported was the NATA Position Statement: Exertional Heat Illnesses, with a frequency of 67 (29.3%). The fifth highest frequency reported was the NATA Position Statement: Emergency Planning in Athletics, with a frequency of 65 (28.4%). This was followed by the NATA Code of Ethics (n=63; 27.5%), the NATA Position Statement on Fluid Replacement for Athletes (n=62; 27.1%), the NATA Position Statement on the Management of Sport-related Concussion (n=59; 25.8%), the NATA

Official Statement on Automated External Defibrillators (n=57; 24.9%), the Board of Certification (BOC) Standards of Practice (n=55; 24%), the NATA Support Statement on Recommendations and Guidelines for Appropriate Medical Coverage of Intercollegiate Athletics (n=50; 21.8%), and State Licensure Laws for athletic training (n=48; 21%). See Appendix E for the remaining frequencies.

Table 36

Most Frequently Utilized Resources by Collegiate Athletic Training Departments in Developing Policies and Procedures (N=229)

	n	%
NATA position statement: Lightning safety for athletics and recreation	81	35.4%
OSHA Regulations (Standards-29CFR) Bloodborne Pathogens - 1910.1030	72	31.4%
06-07 NCAA Sports Medicine Handbook	72	31.4%
NATA position statement: Exertional heat illnesses	67	29.3%
NATA position statement: Emergency planning in athletics	65	28.4%
NATA code of ethics	63	27.5%
NATA position statement: Fluid replacement for athletes	62	27.1%
NATA position statement on the management of sport-related concussion	59	25.8%
NATA official statement on automated external defibrillators	57	24.9%
BOC standards of professional practice	55	24.0%
NATA support statement on recommendation and guidelines for appropriate medical coverage of intercollegiate athletics	50	21.8%
State licensure laws	48	21.0%

Of these top 12 resources, eight were in the category of professional position statements, which was the category with the highest overall frequency as well. College athletic trainers utilized their professional position statement more frequently than other resources available to them in the development of the policy and procedure manual.

In order to implement effective written and operational risk management practices the standards and laws pertaining to the risk must be thoroughly understood. College athletic trainers did not indicate a high frequency for utilization within a policy and procedure manual for federal statutes and laws (e.g., OSHA, HIPAA, CDC Guidelines, Federal Anti-Tampering Act, Omnibus Reconciliation Act) or professional standards of practice. However, 54% of athletic trainers indicated a written and operational form for established in-service on specific policies and procedures dealing with these same federal laws. Furthermore, 93% of athletic trainers perceived this to be either an important (28%) or very important (65%) risk management practice. A disconnect between actual utilization, perceived importance, and application might be inferred from this data. If this is the case, the inconsistency can result in increased risk to the athletic trainer and employer, and a potential decrease in the standard of care provided to the patient, who in this setting is the college athlete.

Ancillary Findings

Two additional questions were asked at the end of the survey instrument. The first question asked participants to identify if they believed national standards in policy and procedure development should be created for collegiate athletic training departments. Of those responding to the question, 100 (69.9%) answered affirmatively. When responses were analyzed for head athletic trainers, 30 (76.9%) answered affirmatively.

When analyzed by athletic organization affiliations of NCAA Division I, NCAA Division II, NCAA Division III, and NAIA, the affirmative responses were 69.2%, 81%, 78.3%, and 85.7%, respectively. See Table 37 for data.

Table 37

Need for National Standards in Policy and Procedure Development for Collegiate Athletic Training Departments

	n	Yes	No	Percent Yes
All	143	100	43	69.9%
Head athletic trainer	39	30	9	76.9%
NCAA DI	26	18	8	69.2%
NCAA DII	21	17	4	81.0%
NCAA DIII	23	18	5	78.3%
NAIA	7	6	1	85.7%

The final question asked participants to identify if they believed an external accrediting organization should regulate the collegiate athletic training facility with respect to the health, safety, and standard of care of athletes and function of the facility. Of those responding to the question, 65 (45.5%) answered affirmatively. When responses were analyzed for head athletic trainers, 18 (46.2%) answered affirmatively. When analyzed by athletic organization affiliations of NCAA Division I, NCAA Division II, NCAA Division III, and NAIA, the affirmative responses were 46.2%, 42.9%, 52.2%, and 57.1%, respectively. See Table 38 for data.

Table 38

Need for an External Accrediting Organization for College Athletic Training Facilities

	n	Yes	No	Percent Yes
All	143	65	78	45.5%
Head athletic trainer	39	18	21	46.2%
NCAA DI	26	12	14	46.2%
NCAA DII	21	9	12	43.0%
NCAA DIII	23	12	11	52.2%
NAIA	7	4	3	57.1%

These findings suggest athletic trainers recognize the need for formal guidance on developing and implementing policies and procedures. However, the athletic trainers do not want the regulatory oversight determining their compliance with the policies and procedures.

Additional information was examined from the study. Frequencies were determined for each of the specific examples within the categories provided in part I of the survey. Table 39 identified the ten specific examples with the highest frequencies for risk management practices that are in operation and written form.

Table 39

Top Ten Specific Risk Management Practices in Operation and Written Form

	Risk management category	n	Operation & written practice
Pre-participation physical examination	Participation and consent	153	96.8%
Release of information	Participation and consent	148	94.3%
Emergency action plan for each venue	Handling emergencies	142	92.8%
Confidentiality and security	Participation and consent	143	91.1%
Assumption of risk	Participation and consent	144	91.1%
Consent to treat	Participation and consent	139	88.5%
Catastrophic insurance for athletes	Methods of providing insurance	134	85.9%
Job responsibilities of athletic trainer	Administrative responsibilities	119	85.0%
Secondary insurance for athletes	Methods of providing insurance	132	84.1%
Pre-existing conditions	Participation and consent	129	82.2%

Table 40 identifies the highest frequencies for risk management practices that were selected as not in operation or written form (neither). Over half (55.7%) of athletic trainers do not have job responsibilities as the designated risk manager. Data reveal seven of the ten specific risk management practices that are neither in operation nor written

form also are in the area of periodic reviews and in-services. The findings indicate athletic trainers do not properly document or review their own policies and procedures.

Table 40

Top Ten Specific Risk Management Practices Not in Operation or Written Form

	Risk management category	n	Neither
Supervisor/Athletic Director	Periodic in-service with personnel	85	61.2%
Team Physicians	Periodic in-service with personnel	84	56.8%
Job responsibilities for designated risk manager	Administrative responsibilities	68	55.7%
Part-time staff/athletic trainer	Periodic in-service with personnel	58	43.6%
Insurance counselor	Consults others	63	39.6%
Graduate assistants/athletic trainer	Periodic in-service with personnel	54	39.1%
Pregnancy	Care and treatment of injuries and conditions	55	37.2%
Documentation of policy and procedure review	Periodic review of policies and procedures	59	35.3%
Communicable disease	Periodic in-services of policies and procedures	54	32.9%
Timelines to review policies and procedures	Periodic review of policies and procedures	52	31.3%

Table 41 identifies the ten specific examples with the highest frequencies for risk management practices that athletic trainers perceive to be very important. Data

reveal eight of the ten specific risk management practices perceived as very important were also identified as risk management practices that are in operation and written form.

Table 41

Top Ten Specific Risk Management Practices Perceived to be Very Important

	Risk management category	n	Very important
Emergency action plan for each venue	Handling emergencies	117	94.4%
Pre-participation physical examination	Participation and consent	116	91.3%
CPR/AED training	Periodic in-services of policies and procedures	109	84.5%
Release of information	Participation and consent	104	82.5%
Confidentiality and security	Participation and consent	104	82.5%
Assumption of risk	Participation and consent	104	81.9%
Pre-existing conditions	Participation and consent	102	80.3%
Consent to treat	Participation and consent	101	80.2%
Catastrophic insurance for athletes	Methods of providing insurance	100	80%
Liability insurance for the athletic trainer	Methods of providing insurance	99	79.2%

Table 42 identifies the ten specific examples with the highest frequencies for risk management practices that athletic trainers perceive to be not important. Data reveal six of the ten specific risk management practiced perceived as not important were also identified as a risk management practice that is neither in operation or written form.

Table 42

Top Ten Specific Risk Management Practices Perceived to be Not Important

	Risk management category	n	Not important
Job responsibility for designated risk manager	Administrative responsibilities	21	18.6%
Dress code	Administrative responsibilities	18	14.8%
JV/Alumni event coverage	Plan for supervision	16	13.9%
Graduate assistant/athletic trainer	Periodic in-service with personnel	15	13.4%
Inventory and purchasing	Administrative responsibilities	15	12.3%
Part-time staff/athletic trainers	Periodic in-service with personnel	14	12.3%
Team physicians	Periodic in-service with personnel	12	9.6%
Timelines to review policies and procedures	Periodic review of policies and procedures	12	9.1%
Tryout coverage of recruits	Plan for supervision	11	9%
In-service with supervisor/Athletic Director	Periodic in-service with personnel	11	8.9%

Survey question 91 sought to identify the items which were utilized in the policy and procedure manual. This question was also analyzed with respect to head athletic trainers' utilization of resources in the policy and procedure manual, with results presented in Table 43. The highest frequency within a group was the professional position statements, with a frequency of 320 (36.2%). The other groups were, in order, standards of practice 32(27.1%), state licensure laws 14 (23.7%), NCAA or NAIA Sports Medicine Handbooks 25 (21.2%), federal regulations 59 (14.3%), and legal cases 34 (4.8%). An additional four participants (6.8%) also indicated using other resources. Frequencies were higher in each category when compared to the overall frequencies of all participants. These findings suggest head athletic trainers utilize more resources than other college athletic trainers when developing policies and procedures.

Table 43
Categories of Resources Utilized by Head Athletic Trainers in Developing Policies and Procedures (N=59)

	n	%
Professional position statements	320	36.2%
Standards of practice	32	27.1%
State licensure laws	14	23.7%
NCAA/NAIA sports medicine handbooks	25	21.2%
Federal regulations	59	14.3%
Legal precedent	34	4.8%
Other	4	6.8%

Individual items from the entire list were ranked by frequency as selected by head athletic trainers. This data is presented in Table 44. The items with the highest frequencies for head athletic trainers match the highest frequency from all respondents. These findings indicate athletic trainers, regardless of whether they are the head athletic trainer, utilize the same documents.

Table 44

Specific Resources Utilized by Head Athletic Trainers in Developing Policies and Procedures (N=59)

	n	%
NATA position statement: Lightning safety for athletics and recreation	37	62.7%
NATA position statement: Emergency planning in athletics	33	55.9%
OSHA Regulations (Standards-29CFR) Bloodborne Pathogens - 1910.1030	30	50.8%
NATA code of ethics	28	47.5%
NATA position statement: Exertional heat illnesses	28	47.5%
NATA support statement on recommendations and guidelines for appropriate medical coverage of intercollegiate athletics	27	45.8%
NATA position statement on the management of sport-related concussion	25	42.4%
NATA position statement: Fluid replacement for athletes	23	39%
NATA official statement on automated external defibrillators	22	37.3%
BOC standards of professional practice	21	35.6%
06-07 NCAA Sports Medicine Handbook	21	35.6%

Similar findings were identified when resources were examined by the level of participation of varsity athletic teams, as seen in Appendix F. The data reveal eight of the resources identified by head athletic trainers were also the highest ranking resources utilized by athletic trainers working in each of the affiliated athletic organizations of NCAA Division I, NCAA Division II, NCAA Division III, and NAIA. Interestingly, athletic trainers at the NCAA Division I and Division II levels did not utilize the 2006-07 NCAA Sports Medicine Handbook as frequently as head athletic trainers. Additionally, athletic trainers affiliated with the NAIA did not identify utilizing the NAIA Medical Guidelines Handbook, instead utilizing the 2006-07 NCAA Sports Medicine Handbook.

Summary

The data suggest that athletic trainers perceive all thirteen categories to be important or very important risk management practices to be included in a risk management plan covered in collegiate athletic training policy and procedure manuals suggesting that athletic trainers, as healthcare professionals, recognize the importance of risk management practices. The extent to which athletic training departments across the United States engage in risk management practices varies widely.

The data suggest head athletic trainers typically serve in the capacity of risk manager for the athletic training room, in addition to their other duties and responsibilities. This is different from other health care professions, where an individual is employed or a committee is formed specifically to serve in the capacity of risk manager.

College athletic trainers utilize their professional position statements more frequently than other resources available to them in the development of the policy and procedure manual, including federal laws and professional standards of practice. In order to implement effective written and operational risk management practices the standards and laws pertaining to the risk must be thoroughly understood.

College athletic trainers indicate a strong desire for national standards on policy and procedure development but are not as inclined to have an external accrediting organization regulate the athletic training facility. This indicates athletic trainers, while healthcare professionals, do not align themselves or the profession with standards and accreditation similar to other healthcare professionals.

CHAPTER FIVE: DISCUSSION

Purpose

The purpose of this study was to identify and describe (a) risk management practices of collegiate athletic trainers, (b) perceived risk management practices important to the collegiate athletic trainer, (c) risk management responsibilities of the head athletic trainer, and (d) resources utilized by collegiate athletic trainers in the development of a risk management plan. This information establishes a baseline of current risk management practices in the collegiate athletic training setting for the profession of athletic training. The results of the study provide the foundation for identifying best practices in risk management, expanding the knowledge of practicing athletic trainers, and developing readily available resources in risk management. Therefore, this study sought to identify current risk management practices and perceptions of the collegiate athletic trainer.

This study sought to answer the following questions related to risk management practices and policy and procedure development:

1. To what extent do collegiate athletic training departments engage in risk management practices?
2. What do collegiate athletic trainers perceive to be the important risk management practices to be included in a risk management plan covered in collegiate athletic training policy and procedure manuals?
3. To what extent do collegiate athletic training policy and procedure manuals address important risk management topics?

4. To what extent are head athletic trainers responsible for the development, implementation, and management of the risk management practices for the collegiate athletic training room?
5. What are the types of resources collegiate athletic training departments utilize in developing policies and procedures?

Population/Sample

The target population for this study was athletic trainers employed by colleges and universities in the United States. Four year collegiate athletic departments compete in either the National Collegiate Athletic Association (NCAA) or the National Association of Intercollegiate Athletics (NAIA). Institutions compete in one of the athletic associations with affiliations in NCAA Division I (326), NCAA Division II (282), NCAA Division III (419), and NAIA (282), for a total of 1309 colleges and universities. The sample size for this study was 600 (n=600) college athletic trainers from a population of 5,157 (N=5157) certified members of the National Athletic Trainers' Association (NATA) who identified an employment setting of university and college.

Methods

The names of 600 athletic trainers were randomly selected from a list of 5,157 certified athletic trainers who were current members of the NATA with a membership type of *certified* and were living within the United States; Canada was not included. These individuals also identified an employment setting of university or college.

An email containing the electronic cover letter and link to the survey was distributed to the random sample of athletic trainers. The electronic cover letter explained the purpose of the study, institutional review board approval, and voluntary participation in the study. One week later a follow-up email containing the cover letter and link to the survey was sent. Two weeks after the initial email, a third email containing the cover letter and link to the survey was distributed. Three weeks after the initial email, a paper cover letter and survey were mailed through the United States Postal Service (USPS) to the random sample of athletic trainers. The cover letter explained the purpose of the study, Institutional Review Board approval, and voluntary participation in study. A self-addressed, stamped envelope was included with the cover letter and survey.

Findings

The data suggest athletic trainers perceive all 13 categories to be important or very important risk management practices to be included in a risk management plan covered in collegiate athletic training policy and procedure manuals. This suggests that athletic trainers, as healthcare professionals, recognize the importance of risk management practices. However, the extent to which athletic training departments across the United States engage in risk management practices is inconsistent. The findings indicated risk management practices are not consistently documented in written form and in operational use.

The data suggest head athletic trainers serve in the capacity of risk manager for the athletic training room, in addition to their other duties and responsibilities. This is different from other health care professions, where an individual is specifically hired or a committee is established to be the risk manager for a healthcare facility.

Findings indicate college athletic trainers do not access the resources available to guide them in the development of risk management plans such as federal laws and case law. However, they do utilize their professional position statement more frequently than other resources available to them in the development of the policy and procedure manual, including federal laws and professional standards of professional practice.

Athletic trainers desire national standards in policy and procedure development. However, they are not as inclined to have an external accrediting organization regulate the practices in the collegiate athletic training facility.

As healthcare professionals, athletic trainers have a duty to provide a standard of care. Failure to conform to a standard of care leaves the patient at risk of harm, the athletic trainer liable for his or her actions (or lack of actions), and the institution liable as the employer of the athletic trainer and the sponsor of the varsity sport. Risk management tools, in the form of written policies and procedures, is a means to manage risk through consistent standards of care, which is a standard practice of health care facilities. In order to implement effective written and operational risk management practices, the standards and laws pertaining to the risk must be thoroughly understood. The data suggests athletic trainers may not know where to access resources, how to interpret these resources, or how to implement these resources, which could explain the variations of written and operational risk management practices. Inconsistent use of policies and procedures or a lack of knowledge of the laws and standards could imply the standard of care provided in collegiate athletic training rooms is not that of an ordinary, reasonable, and prudent athletic trainer. This could also indicate that the college athletic

training facility does not follow similar protocols as other healthcare facilities and professions.

Discussion

In order to manage risk, the potential for risk must first be identified. Each area of risk must be evaluated for the harm or damage that can occur and a level of risk assigned. With this information, an appropriate plan can be formulated to manage the level of risk assigned to each identified area of risk. In the collegiate athletic training room, the identification, development, and implementation of risk management often falls to the athletic trainer. However, the college athletic trainer has limited guidance and training in risk management, with even less guidance in the identification, development, and implementation of risk management tools, specifically the policy and procedure manual. A clearinghouse does not exist that provides best practices in risk management or policy and procedure development for the college athletic training room. In addition, there is no accrediting body with established standards governing collegiate athletic training facilities, as there are for other health care professions, such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) or the Commission on Accreditation of Rehabilitation Facilities (CARF). The findings of this study establish a baseline in the area of risk management for the athletic training profession, particularly the development and implementation of a policy and procedure manual.

In healthcare organizations accredited by JCAHO and CARF, written policies and procedures are required (Guido, 2003). Policies and procedures should be clearly stated and based upon current practice (Bouchard, 1994; Sullivan & Decker, 2005). The document must be developed within the boundaries of accrediting agencies, standards of

care, standards of professional practice, federal statutes, and professional position statements (Herbert, 1995), not to mention a respectful review of applicable case law. The findings of this study indicate inconsistency in the implementation of risk management practices in a policy and procedure manual with respect to whether a policy and procedure is in written form and is in actual operational use. These findings are contrary to findings of a study by Slack (2004) examining standard operating procedures; 80.4% of head athletic trainers indicated they had a standard operating procedure, also known as a policy and procedure manual. Of those with a standard operating procedure, 74.3% indicated it was in writing and 78% indicated the written standard operating procedure was nearly always followed.

According to Ammon (2001), a risk management plan requires communication, documentation, and training. Herbert (1995) and Page (2002) outlined the importance of risk management plans in the form of written policies and procedures. The findings of this study imply that athletic trainers do not overwhelmingly communicate, document, or train personnel about the risk management plan in a written and operational format. However, athletic trainers perceive the communication, documentation, and training of personnel to be important or very important risk management practices.

Furthermore, college athletic trainers overwhelmingly perceive all risk management practices to be important or very important for the athletic training department. This suggests that college athletic trainers recognize the existence and importance of a standard of care.

Based upon the findings of this study there appears to be a significant correlation between the perceived importance of categories in a policy and procedure

manual and the operational use and written form of the policy and procedure manual. The higher the perceived importance of a category the more likely the college athletic trainer has established the category in operational use and written form. This information may support the importance of the Foundational Behaviors as part of the 4th edition of the Educational Competencies. By implementing Foundational Behaviors throughout the academic program, athletic training students may develop behaviors that are more likely to influence their perceptions, which might directly impact the development and implementation of risk management practices.

The findings of this study are similar to those of Styles' (2002) risk management development at university recreational facilities. Styles' (2002) findings concluded that recreational directors of university recreational facilities create their own risk management manuals and primarily utilize the American College of Sports Medicine (ACSM) and the National Intramural-Recreational Sports Association (NIRSA) documents as resources in the development process. This current study identified head athletic trainers as the primary risk manager with respect to the creation, development and implementation of a policy and procedure manual in the college athletic training room. Without formal requirements by an accrediting organization or formal training as a risk manager, the head athletic trainer is free to implement policies and procedures of choice. Unfortunately, Styles' study was based in academia and recreation, not healthcare professionals.

A policy and procedure document must be developed within the boundaries of accrediting agencies, standards of care, standards of practice, federal statutes, and professional position statements (Herbert, 1995), in addition to a respectful review of

applicable case law. A college athletic trainer should utilize NATA position statements, including official and consensus statements. The NATA Code of Ethics and Board of Certification (BOC) Standards of Professional Practice should be incorporated, and the BOC Role Delineation Study should be reviewed. Federal statutes, such as Centers for Disease Control (CDC) Guidelines on Hand Hygiene, CDC Personal Protective Equipment in Healthcare Settings, Occupational Safety and Health Administration (OSHA) Regulations (Standards-29CFR), Federal Anti-tampering Act of 1983, Omnibus Reconciliation Act of 1990, State Pharmacy Practice Act and Drug Law, and the medical and training facilities and services component of Title IX, must be reviewed and implemented. State licensure laws must be incorporated. Guidelines from the athletic organization's governing body should be incorporated. Applicable case law should be reviewed, including, but not limited to, *Lennon v. Peterson (1993), Gillespie v. Southern Utah State College (1983), Jarreau v. Orleans Parish(1992), DiSalvio v. Lower Merion School District (2001), Brennan v. Bd of Trustees of Univ. of Louisiana System (1997), Monaco v. Raymond (1984), Pinson v. Tennessee (1995), Searles v. Trustees of St. Joseph's College (1997), Kleinknecht v. Gettysburg College (1993), Krueger v. San Francisco Forty Niners (1987), Passinault v. Stoessner (2002),* and *Wallace v. Broyles (1998).* However, the operation of a collegiate athletic training room is not accredited by an external organization. Therefore, the athletic trainer has no boundaries or requirements to utilize or implement any of the aforementioned areas and their respective documents.

This study found that college athletic trainers infrequently utilize resources in the development of policies and procedures. However, they do utilize their professional

position statements more frequently than standards of care, standards of practice, federal statutes, and case law review. These findings are consistent with the Notebaert and Guskiewicz (2005) study, which examined a specific position statement on concussion assessment and management. Their findings identified a lack of utilization and implementation of the position statement on concussion assessment and management.

Over half of the athletic trainers indicated a written and operational form of federal statutes, selecting specific examples such as Health Insurance Portability and Accountability Act (HIPAA) and OSHA. Athletic trainers also identified a written and operational policy and procedure for professional, national, state, and local codes, rules, and regulations. However, federal statutes were infrequently selected as resources utilized in the development of the policy and procedure manual. This is consistent with a study by Kahanov, Furst, Johnson, and Roberts (2003) which found infrequent compliance with federal statutes regarding administration and dispensation of medication.

Athletic trainers indicated they have a written and operational policy and procedure related to federal statutes, yet they failed to identify the specific federal statute as a resource in the development of a policy and procedure manual. There appears to be a disconnect between the actual items in the policy and procedure manual and the resources utilized to create the policy and procedure. One might infer that athletic trainers do not access the direct source of information, such as the actual law, but instead reference text books, contact colleagues, or use their knowledge from graduate or undergraduate school.

Because athletic trainers are recognized healthcare providers, the college athletic training room is a healthcare facility in an institution of higher education. This is similar

to a campus health center employing nurses, nurse practitioners, physician assistants, and physicians. Specific policies and procedures for the collegiate athletic training room provide guidance and structure to the athletic trainers in this particular healthcare setting and optimize the standard of care for the patients. Generalized or vague explanations will not manage the risk, but may instead increase the risk (van der Smissen, 1990). The court cases listed in the preceding paragraphs demonstrate the litigious nature related to specific standards of care, state law, and federal statutes. However, several cases have examined the risk management practices and documents within a facility. In *Harco Drugs, Inc. v. Holloway (Alabama 1995)*, a pharmacy company was found reckless for not having more substantial quality assurance systems in place to prevent or limit the potential for a pharmacist to fill a prescription with the wrong drug. In *Peacock v. Samaritan Health Service (1988)*, the court stated that hospital protocol provided some evidence of a standard of care. However, the hospital was negligent for failure to follow the standard of care provided in the protocol. In *Parker v. Southwest Louisiana Hospital Association (1989)*, the hospital's standards exceeded the national standard. When an employee did not follow the hospital's higher standard, the hospital was found negligent. These three cases deal specifically with weaknesses in the risk management plan, or the policy and procedure manual, within the healthcare facility. Failure of athletic trainers to recognize risk and develop, implement, and manage policies and procedures utilizing available and appropriate resources places the athletic trainer at greater risk of harming a patient.

College athletic trainers overwhelming indicated a desire for national standards on policy and procedure development. This suggests that athletic trainers recognize the

importance of risk management through the development of policies and procedures but are unclear as to what should be included and how to utilize resources in the development process. However, less than half of college athletic trainers believe there is a need for an external accrediting organization to regulate the operation of the collegiate athletic training facility. While athletic trainers recognize important risk management practices and a need for guidance in developing policies and procedures, the data suggest athletic trainers want to continue to self-regulate the operation of their facility through the implementation of their own policies and procedures.

Conclusion

Overall, the findings indicate inconsistency with the written and operational use of the policy and procedure manual in collegiate athletic training departments, even though athletic trainers overwhelmingly agree these items are important or very important risk management practices. Furthermore, head athletic trainers currently have the responsibility to develop, change, and update policy and procedure manuals yet they utilize very few published resources to aid them in the development process.

The profession needs to examine guidelines and additional educational opportunities to assist the college athletic trainer with the risk management responsibilities currently imposed on them. Furthermore, the profession needs to examine the alignment of the collegiate athletic training room with organizations that accredit healthcare facilities as a means to establish a consistent standard of care for the patients, in this case the athletes.

Implications for the Profession

An examination of current risk management practices and perceptions of college athletic trainers provides the foundation for examining the next step within the profession. This study supports the continued publication of professional position statements, as they are the most utilized resource in the development of a policy and procedure manual. The profession should explore the development of other resources for athletic trainers to utilize in the area of federal laws, case law, and standards of professional practice.

This study identified inconsistency with the utilization of athletic organization handbooks and information on medical care for athletes. The profession should examine the role of the handbooks from athletic organizations in the development of risk management planning through policies and procedures to determine if there is conflicting information or too many choices, thus confusing the athletic trainer.

This study has identified head athletic trainers as the primary risk managers for the college athletic training room and the developers of the risk management practices utilized in the policy and procedure manual. The head athletic trainer should be delineated as the official risk manager within a job description, in addition to the other responsibilities. However, the employer or university needs to recognize the time necessary to create and implement an appropriate risk management document, such as a policy and procedure manual, as this is time taken away from direct patient care.

College athletic trainers indicate a desire for national standards in policy and procedure development. The findings from this study might provide the impetus for the

profession to develop a position statement or create a formal structure for risk management practices in the form of policies and procedures.

This study also has implications for higher education administrators. The findings from this study provide university administrators with information to explore risk management responsibilities of collegiate athletic training from a healthcare perspective and develop plans to reduce and management risk appropriately.

Recommendations for Further Study

Further research should examine the amount of time the head athletic trainer spends on the development and implementation of risk management tools, such as policies and procedures, in-services, and research. The identification of time away from patient care may encourage the formal hiring of an athletic trainer as a full-time risk manager.

Further research should examine the role and knowledge of the direct supervisor of the head athletic trainer and collegiate athletic training departments with respect to risk management practices. Research in this area could indicate a need for formal training in the area of standards of care for healthcare professionals as a means to enhance the standard of care and risk management plans in the collegiate athletic training department.

Further research should include an examination and analysis of the actual policy and procedure document utilized in the collegiate athletic training room. Comparisons of self-reported inclusion and the depth of the development of policy and procedure manuals can provide insight into further professional training and workshops for the head athletic trainer.

Further research should occur on each individual category within this survey. In-depth analysis of each category could yield more specific data and information.

Further research should explore the value of utilizing services from the American Society for Healthcare Risk Management (ASHRM) in the collegiate athletic training room as a means to develop and implement risk management practices.

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APPENDICES

APPENDIX A: COVER LETTER

MARSHALL UNIVERSITY
www.marshall.edu

Graduate College
School of Education & Professional Development
Leadership Studies

February 5, 2007

Dear Certified Athletic Trainer:

Please accept this invitation to participate in an important study. The purpose of this research project is to assess risk management practice of collegiate athletic trainers in the collegiate setting. This research will help me understand how the profession might address risk management issues faced by the certified athletic trainer.

Your participation is vital to the success of this study and is entirely voluntary. If you do not wish to participate, simply discard the questionnaire. You have a right to not respond to every question. You have the right to withdraw from this study at any time without penalty. All individual responses will be kept anonymous. Completing and returning the questionnaire constitutes your consent to participate.

Please complete the front and back of this survey which should take approximately 20 minutes. The completed survey can be returned using the self-addressed stamped envelope that I have provided.

Keep this letter for your records. If you have any questions regarding the research, feel free to contact Dr. Mike Cunningham in the Leadership Studies Program at Marshall University by calling 800.642.9842 ext. 1912 or by email to mcunningham@marshall.edu, or Ericka Zimmerman, MS, ATC at 304.357.4828 or erickazimmerman@ucwv.edu. If you have questions regarding your rights as a research subject, please contact the Office of Research Integrity at Marshall University at 304.696.7320. Thank you again for your participation!

Sincerely,

MU IRB
FEB 9 2007
APPROVED

APPENDIX B: INSTITUTIONAL REVIEW BOARD

MARSHALL UNIVERSITY
www.marshall.edu

Office of Research Integrity
Institutional Review Board

Friday, February 09, 2007

Michael Cunningham, Ed.D.
Leadership Studies
MU Grad. School

RE: IRB Study # EX07-0078 **At:** Marshall IRB 2

Dear Dr. Cunningham:

Protocol Title:
Risk Management Practices of Collegiate Athletic Trainers

Expiration Date:	2/8/2008
Our Internal #:	3193
Type of Change:	(Other) Exempted
Expedited ?:	☐
Date of Change:	2/7/2007
Date Received:	2/7/2007
On Meeting Date:	
Description:	In accordance with 45CFR46.101(b)(2), the above study and informed consent were granted Exempted approval today by the Marshall University IRB#2 Chair for the period of 12 months. The approval will expire 2/8/08. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date. This study is for student Ericka Zimmerman. The purpose of this study is to identify and describe (1) risk management practices of collegiate athletic trainers, (2) perceived risk management practices important to the collegiate athletic trainer, (3) risk management responsibilities of the athletic trainer, and (4) resources utilized by collegiate athletic trainers in the development of a risk management plan.

Respectfully yours,

Stephen D. Cooper, Ph.D.
Marshall University IRB#2 Chairperson

APPENDIX C: ATHLETIC TRAINING RISK MANAGEMENT PRACTICES QUESTIONNAIRE

Athletic Training Risk Management Practices Questionnaire

The purpose of this instrument is to identify current practices in risk management in collegiate athletic training departments. Please place an X in the box of the response which best describes the risk management practice *in your department and then, to the far right, place an X in the box which best describes your opinion of the importance of that practice in collegiate athletic training departments*.

Part I: Risk Management (RM) Practices	1 The practice is in operation, and it appears in written form	2 The practice is in operation but it does not appear in written form	3 The practice is not in operation, but it does appear in written form	4 The practice is not in operation and it does not appear in written form	1 Very important (RM) practice for department	2 Important (RM) practice for department	3 Somewhat important (RM) practice for department	4 Not important (RM) practice for department
Our Athletic Training department :								
has established periodic reviews of policies and procedures (P&P).								
1. Review P&P	□	□	□	□	□	□	□	□
2. Timelines for review of P&P	□	□	□	□	□	□	□	□
3. Documentation of review of P&P	□	□	□	□	□	□	□	□
consults with others when developing policies and procedures.								
4. Legal counselor(s) or institutional legal counsel	□	□	□	□	□	□	□	□
5. Insurance counselor(s)	□	□	□	□	□	□	□	□
6. Athletic Director	□	□	□	□	□	□	□	□
7. Team Physician(s)	□	□	□	□	□	□	□	□
8. another athletic trainer(s)								
has established periodic in-services on specific policies and procedures.								
9. HIPAA & privacy	□	□	□	□	□	□	□	□
10. OSHA/Blood-borne pathogens	□	□	□	□	□	□	□	□
11. Bloodborne Pathogen Exposure Control Plan	□	□	□	□	□	□	□	□
12. CPR/AED training	□	□	□	□	□	□	□	□
13. Communicable Disease/Illness of ATC	□	□	□	□	□	□	□	□
has established periodic in-services for personnel.								
14. Full-time staff /ATC	□	□	□	□	□	□	□	□
15. Part-time staff /ATC	□	□	□	□	□	□	□	□
16. Graduate assistants/ATC	□	□	□	□	□	□	□	□
17. Supervisor/Athletic Director	□	□	□	□	□	□	□	□
18. Students, Volunteers or Non-ATC	□	□	□	□	□	□	□	□
19. Team Physician(s)	□	□	□	□	□	□	□	□
has established specific methods for providing insurance against risks and losses.								
20. Secondary insurance for athletes	□	□	□	□	□	□	□	□
21. Catastrophic insurance for athletes	□	□	□	□	□	□	□	□
22. Liability insurance for athletic trainers	□	□	□	□	□	□	□	□
has established policies & procedures regarding participation & consent of athletes.								
23. Assumption of risk	□	□	□	□	□	□	□	□
24. Confidentiality and Security	□	□	□	□	□	□	□	□
25. Release of Information	□	□	□	□	□	□	□	□
26. Pre-participation examination	□	□	□	□	□	□	□	□

27. Consent to treat	□	□	□	□	□	□	□	□
28. Prospective athlete/recruit waiver	□	□	□	□	□	□	□	□
29. Pre-existing conditions	□	□	□	□	□	□	□	□
has established policies and procedures for handling emergencies.								
30. Emergency action plan for each sport and/or venue	□	□	□	□	□	□	□	□
31. Concussions/head injury	□	□	□	□	□	□	□	□
32. Spinal cord injury	□	□	□	□	□	□	□	□
33. Helmet/shoulder pad removal	□	□	□	□	□	□	□	□
34. Asthma	□	□	□	□	□	□	□	□
35. Heat Illness	□	□	□	□	□	□	□	□
36. Inclement weather	□	□	□	□	□	□	□	□
has established policies and procedures for care and treatment of injuries and conditions.								
37. Physician referrals	□	□	□	□	□	□	□	□
38. Wound care	□	□	□	□	□	□	□	□
39. Return to play guidelines	□	□	□	□	□	□	□	□
40. Pregnancy	□	□	□	□	□	□	□	□
41. Disordered eating	□	□	□	□	□	□	□	□
42. Substance abuse	□	□	□	□	□	□	□	□
43. Prescription drug storage and administration	□	□	□	□	□	□	□	□
44. OTC drug storage and administration	□	□	□	□	□	□	□	□
45. Rehabilitation	□	□	□	□	□	□	□	□
46. Treatment								
has an established routine for safety inspection and investigation.								
47. Equipment calibration and inspection/GFI	□	□	□	□	□	□	□	□
48. Facility cleaning	□	□	□	□	□	□	□	□
has an established plan for supervision, which embraces risk management and a standard of care.								
49. Facility rules	□	□	□	□	□	□	□	□
50. Hours of operation	□	□	□	□	□	□	□	□
51. Practice coverage	□	□	□	□	□	□	□	□
52. Home Game/Event Coverage	□	□	□	□	□	□	□	□
53. Away Game/Event Coverage	□	□	□	□	□	□	□	□
54. Non-traditional season/individual practice coverage	□	□	□	□	□	□	□	□
55. JV/Alumni Event Coverage	□	□	□	□	□	□	□	□
56. Tryout coverage of recruits	□	□	□	□	□	□	□	□
has taken steps to eliminate potential risks by conforming to all professional, national, state, &local codes, rules, & regulations.								
57. Professional codes, rules, and regulations	□	□	□	□	□	□	□	□
58. National codes, rules, and regulation	□	□	□	□	□	□	□	□
59. States and local codes, rules, and regulations	□	□	□	□	□	□	□	□
has established goals and objectives which will be met through risk management efforts.								
60. Philosophy, mission, and/or outcomes	□	□	□	□	□	□	□	□
61. Harassment	□	□	□	□	□	□	□	□
62. Discrimination	□	□	□	□	□	□	□	□
63. Patient/Athlete Rights	□	□	□	□	□	□	□	□
has designated procedures and policies for administrative responsibilities.								
64. Job responsibilities/descriptions of athletic trainers	□	□	□	□	□	□	□	□
65. Job responsibilities for team physician	□	□	□	□	□	□	□	□
66. Job responsibilities for students/volunteers	□	□	□	□	□	□	□	□
67. Job responsibilities for graduate assistants	□	□	□	□	□	□	□	□
68. Job responsibilities for designated risk manager	□	□	□	□	□	□	□	□
69. Inventory and purchasing	□	□	□	□	□	□	□	□
70. Medical documentation	□	□	□	□	□	□	□	□
71. Dress code	□	□	□	□	□	□	□	□

72. Visiting team information	□	□	□	□	□	□	□	□
73. Drug testing	□	□	□	□	□	□	□	□

PART II: Please answer the following questions about your employment setting and background:

74. Number of years certified as an ATC:_____yrs.

75. Which best describes your current position: □ Head ATC □ Assistant ATC

76. How many years have you been in your current position:_____

77. Number of varsity teams at your institution: _____

78. Number of athletes: _____

79. Level of participation: □ NCAA Division I □ NCAA Division II □ NCAA Division III □ NAIA

80. Number of full-time ATCs providing clinical coverage:_____

81. Number of part-time ATCs providing clinical coverage: _____

82. Number of intern ATCs providing clinical coverage: _____

83. Number of graduate assistant ATCs providing clinical coverage:____

84. Please identify your immediate supervisor's title:

□ Head Athletic Trainer □ Athletic Director □ Assistant/Associate Athletic Director
□ Department Chair □ Dean/Division Chair □ Provost
□ President □ Other (please specify):_____

85. Does your institution sponsor a CAATE-accredited athletic training education program? □ YES □ NO

PART III: Please answer the following questions about your Risk Management policies:

86. Our Athletic Training department has a written policy and procedure manual: □ YES □ NO

87. My job title is Head Athletic Trainer: □ YES □ NO (If no, Skip to Question 91)

88. When I became the head athletic trainer a policy and procedure manual existed: □ YES □ NO
If you answer YES, go to Question 89; if you answered NO, go to Question 90

89. **If you answered YES to Question 88, choose the most appropriate response**:

□ I adopted the existing policy and procedure manual
□ I made changes to the existing policy and procedure manual
□ I created a new policy and procedure manual

90. **If you answered NO to Question 88, choose the most appropriate response:**

□ I developed a new policy and procedure manual
□ I assigned the task of developing the policy and procedure manual to someone else
□ I did not develop a policy and procedure manual
□ Other (please explain):_____

PART IV: If you utilize any of the following items in your policy and procedure manual, please <u>Check all that apply</u>

91.

- ☐ NATA Position Statement: Emergency Planning in Athletics
- ☐ NATA Position Statement: Fluid Replacement for Athletes
- ☐ NATA Position Statement: Lightning Safety for Athletics and Recreation
- ☐ NATA Position Statement: Management of Sport-related Concussion
- ☐ NATA Official Statement: Automated External Defibrillators
- ☐ NATA Consensus Statement: Recommendations on emergency preparedness and management of sudden cardiac arrest in high school and college athletic programs
- ☐ NATA Consensus Statement: Prehospital care of the Spine-injured Athlete
- ☐ NATA Code of Ethics
- ☐ CDC Guidelines: Hand Hygiene in Healthcare Settings
- ☐ OSHA Regulations (Standards-29CFR) Bloodborne Pathogens – 1910.1030
- ☐ Federal Anti-Tampering Act of 1983
- ☐ State Pharmacy Practice Act and Drug Law
- ☐ Lennon v. Peterson (negligence in providing care)
- ☐ Gillespie v. Southern Utah State College (standard of care; athletic training student providing care)
- ☐ Jarreau v. Orleans Parish (failing to refer)
- ☐ DiSalvio v. Lower Merion School District (witness to inappropriate touching)
- ☐ Brenna v. Bd of Trustees of Univ. of Louisiana System (failure to inform re: drug testing)
- ☐ Monaco v. Raymond (allowed to play without required PPE and permission forms)
- ☐ 2006-07 NCAA Sports Medicine Handbook
- ☐ Other:
- ☐ NATA Position Statement: Exertional Heat Illnesses
- ☐ NATA Position Statement: Head Down Contact and Spearing in Tackle Football
- ☐ NATA Position Statement: Management of Asthma in Athletes
- ☐ NATA Official Statement: Community-Acquired MRSA Infections
- ☐ NATA Official Statement: Commotio Cordis
- ☐ NATA Support Statements: Recommendations and Guidelines for Appropriate Medical Coverage of Intercollegiate Athletics
- ☐ NATA Consensus Statement: Inter-association task force on exertional heat illnesses
- ☐ BOC: Standards of Professional Practice
- ☐ BOC Role Delineation Study
- ☐ CDC: Personal Protective Equipment (PPE) in Healthcare Settings
- ☐ Medical and training facilities and services component of Title IX
- ☐ Omnibus Reconciliation Act of 1990
- ☐ Pinson vs. Tennessee (full disclosure of information)
- ☐ Searles v. Trustees of St. Joseph's College
- ☐ Kleinknecht V. Gettysburg College (responsibility to be prepared)
- ☐ Krueger v. San Francisco Forty Niners (concealment of information)
- ☐ Passinault v. Stoessner (injured athletic training student)
- ☐ Wallace v. Broyles (administer and dispensing of prescription drugs)
- ☐ State licensure law for athletic training
- ☐ NAIA Medical Guidelines Handbook

92. Do you think national standards in policy and procedure development should be created for collegiate athletic training departments? ☐ YES ☐ NO

93. Do you think an external accrediting organization should regulate collegiate athletic training with respect to the health, safety, and standard of care of athletes and function of the facility? ☐ YES ☐ NO

Thank you for taking the time to complete this survey. Please return the completed survey in the self-addressed, stamped envelope provided or you may return it to the following address:

Ericka Zimmerman, MS, ATC
University of Charleston
2300 MacCorkle Ave, SE
Charleston, WV 25304

APPENDIX D: MEAN SCORES OF RISK MANAGEMENT PRACTICES AND PERCEPTIONS

Mean Scores of Operation/Written Forms of Risk Management Practices by Category

Mean Scores of Perceived Importance of Risk Management Practices by Category

Table 45

Mean Scores of Operation/Written Forms of Risk Management Practices By Category

	N	Min.	Max.	M	SD
Periodic Review of Policies & Procedures	165	1	4.0	2.2	1.0
Consult Others	146	1	4.0	2.1	0.7
Periodic In-service of Policies & Procedures	164	1	4.0	1.8	0.8
Periodic In-service with Personnel	120	1	4.0	2.7	1.0
Methods of Providing Insurance	155	1	4.0	1.4	0.7
Participation & Consent	151	1	4.0	1.3	0.5
Handling Emergencies	148	1	3.4	1.6	0.5
Care and Treatment of Injuries & Conditions	138	1	4.0	1.8	0.6
Safety Inspection	149	1	4.0	1.6	0.6
Plan for Supervision	128	1	3.5	1.5	0.5
Conform to Professional, State, & Local Codes	136	1	4.0	1.4	0.6
Goals & Objectives	139	1	4.0	1.7	0.9
Administrative Responsibilities	116	1	3.5	1.6	0.5

Table 46

Mean Scores of Perceived Importance of Risk Management Practices By Category

Perceived Importance	N	Min.	Max.	M	SD
Periodic Review of Policies & Procedures	131	1.0	4.0	2.0	0.8
Consult Others	122	1.0	3.6	1.6	0.5
Periodic In-service of Policies & Procedures	127	1.0	4.0	1.4	0.6
Periodic In-service with Personnel	103	1.0	4.0	1.9	0.8
Methods of Providing Insurance	122	1.0	4.0	1.3	0.6
Participation & Consent	123	1.0	3.0	1.3	0.4
Handling Emergencies	120	1.0	4.0	1.3	0.5
Care and Treatment of Injuries & Conditions	114	1.0	4.0	1.7	0.5
Safety Inspection	126	1.0	4.0	1.4	0.6
Plan for Supervision	113	1.0	3.5	1.7	0.5
Conform to Professional, State, & Local Codes	121	1.0	3.0	1.3	0.6
Goals & Objectives	121	1.0	4.0	1.7	0.7
Administrative Responsibilities	105	1.0	4.0	1.8	0.6

APPENDIX E: FREQUENCIES OF SPECIFIC RESOURCES UTILIZED BY COLLEGIATE ATHLETIC TRAINING DEPARTMENTS IN DEVELOPING POLICIES AND PROCEDURES

Table 47

Specific Resources Utilized by Collegiate Athletic Training Departments in Developing Policies and Procedures (N=229)

	n	%
NATA position statement: Lightning safety for athletics and recreation	81	35.4%
OSHA Regulations (Standards-29CFR) Bloodborne Pathogens - 1910.1030	72	31.4%
06-07 NCAA Sports Medicine Handbook	72	31.4%
NATA position statement: Exertional heat illnesses	67	29.3%
NATA position statement: Emergency planning in athletics	65	28.4%
NATA code of ethics	63	27.5%
NATA position statement: Fluid replacement for athletes	62	27.1%
NATA position statement on the management of sport-related concussion	59	25.8%
NATA official statement on automated external defibrillators	57	24.9%
BOC standards of practice	55	24.0%
NATA support statement on recommendation and guidelines for appropriate medical coverage of intercollegiate athletics	50	21.8%
State licensure laws	48	21.0%
NATA official statement: Community-acquired MRSA infections	44	19.2%
NATA consensus statement: Pre-hospital care of the spine-injured athlete	39	17%
NATA position statement: Management of asthma in athletes	37	16.2%
NATA consensus statement: Recommendations on emergency preparedness and management of sudden cardiac arrest in high school and college athletic programs	36	15.5%

BOC Role Delineation	35	15.3%
NATA consensus statement: Inter-association task force on exertional heat illnesses	32	14%
NATA position statement: Head down contact and spearing in tackle football	32	14%
NATA official statement: Commotio cordis	18	7.9%
CDC guidelines: Hand hygiene in healthcare settings	21	9.2%
State pharmacy practice acts	19	8.3%
CDC: Personal protective equipment in healthcare settings	19	8.3%
Title IX: medical and training facilities and services	14	6.1%
Wallace v. Broyles	7	3.1%
NAIA Medical Guidelines Handbook	7	3.1%
Other	6	2.6%
Gillespie v. Southern Utah State College	5	2.2%
Brennan v. Bd. Of Trustees of University of Louisiana System	5	2.2%
Monaco v. Raymond	5	2.2%
Kleinknecht v. Gettysburg College	5	2.2%
Lennon v. Peterson	4	1.7%
Jarreau v. Orleans Parish	4	1.7%
Federal Anti-tampering act of 1983	3	1.3%
DiSalvio v. Lower Merion School District	3	1.3%
Pinson v. Tennessee	3	1.3%
Krueger v. San Francisco 49ers	3	1.3%
Passinault v. Stoessner	3	1.3%

Searles v. St. Joseph's College	2	0.9%
Omnibus Reconciliation Act of 1990	1	0.4%

APPENDIX F: FREQUENCIES OF SPECIFIC RESOURCES UTILIZED BY COLLEGIATE ATHLETIC TRAINING BY SPONSORING ATHLETIC ORGANIZATION

Specific Resources Utilized by Collegiate Athletic Trainers in Developing Policies and Procedures in NCAA Division I

Specific Resources Utilized by Collegiate Athletic Trainers in Developing Policies and Procedures in NCAA Division II

Specific Resources Utilized by Collegiate Athletic Trainers in Developing Policies and Procedures in NCAA Division III

Specific Resources Utilized by Collegiate Athletic Trainers in Developing Policies and Procedures in NAIA

Table 48

Specific Resources Utilized by Collegiate Athletic Trainers in Developing Policies and Procedures in NCAA Division I (N=43)

	n	%
NATA position statement: Fluid replacement for athletes	29	67.4%
NATA position statement: Lightning safety for athletics and recreation	28	65.1%
NATA position statement: Exertional heat illnesses	26	60.5%
OSHA Regulations (Standards-29CFR) Bloodborne Pathogens - 1910.1030	26	60.5%
NATA official statement on automated external defibrillators	25	58.1%
NATA code of ethics	24	55.8%
NATA position statement: Emergency planning in athletics	24	55.8%
NATA position statement on the management of sport-related concussion	23	53.5%
BOC standards of professional practice	23	53.5%
NATA support statement on recommendations and guidelines for appropriate medical coverage of intercollegiate athletics	22	51.2%

Table 49

Specific Resources Utilized by Collegiate Athletic Trainers in Developing Policies and Procedures in NCAA Division II (N=27)

	n	%
NATA position statement: Emergency planning in athletics	17	63%
NATA position statement: Lightning safety for athletics and recreation	17	63%
OSHA Regulations (Standards-29CFR) Bloodborne Pathogens - 1910.1030	15	55.6%
BOC standards of professional practice	13	48.1%
NATA position statement: Exertional heat illnesses	13	48.1%
NATA official statement on automated external defibrillators	13	48.1%
NATA position statement: Fluid replacement for athletes	12	44.4%
NATA support statement on recommendations and guidelines for appropriate medical coverage of intercollegiate athletics	12	44.4%
NATA position statement on the management of sport-related concussion	11	40.7%
NATA code of ethics	11	40.7%

Table 50

Specific Resources Utilized by Collegiate Athletic Trainers in Developing Policies and Procedures in NCAA Division III (N=39)

	n	%
NATA position statement: Lightning safety for athletics and recreation	29	74.4%
OSHA Regulations (Standards-29CFR) Bloodborne Pathogens - 1910.1030	25	64.1%
NATA position statement on the management of sport-related concussion	22	56.4%
NATA position statement: Exertional heat illnesses	22	56.4%
NATA code of ethics	21	53.8%
NATA position statement: Emergency planning in athletics	18	46.2%
NATA position statement: Fluid replacement for athletes	16	41%
NATA official statement on automated external defibrillators	15	38.5%
2006-07 NCAA Sports Medicine Handbook	15	38.5%
BOC standards of professional practice	13	33.3%
NATA position statement: Management of asthma in athletes	13	33.3%

Table 51

Specific Resources Utilized by Collegiate Athletic Trainers in Developing Policies and Procedures in NAIA (N=13)

	n	%
NATA code of ethics	7	53.8%
BOC standards of professional practice	6	46.2%
NATA position statement: Exertional heat illnesses	6	46.2%
NATA position statement: Lightning safety for athletics and recreation	6	46.2%
NATA position statement: Emergency planning in athletics	6	46.2%
NATA position statement: Fluid replacement for athletes	6	38.5%
OSHA Regulations (Standards-29CFR) Bloodborne Pathogens - 1910.1030	5	38.5%
NATA official statement on automated external defibrillators	4	30.8%
NATA consensus statement: Prehospital care of the spine-injured athlete	4	30.8%
NATA support statement on recommendations and guidelines for appropriate medical coverage of intercollegiate athletics	4	30.8%
BOC role delineation	4	30.8%
2006-07 NCAA Sports Medicine Handbook	4	30.8%

CURRICULUM VITAE
ERICKA POINT ZIMMERMAN, ATC

EDUCATION

Marshall University
Doctor of Education in Educational Leadership, 2007
Indiana State University
Master of Science in Physical Education Specialization in Athletic Training, 1994
St. Andrews Presbyterian College
Bachelor of Arts in Allied Health, 1993

CERTIFICATION

National Athletic Trainers' Association Board of Certification – Certified Athletic Trainer

PROFESSIONAL EXPERIENCE

1997 – 2002	Head Athletic Trainer & Adjunct Faculty, Georgetown College, Georgetown, Kentucky
2002 – 2003	Instructor and Athletic Trainer, University of Charleston, Department of Athletic Training, Charleston, West Virginia
2003 – 2005	Coordinator of Clinical Education, University of Charleston, Department of Athletic Training, Charleston, West Virginia
2005 – Present	Assistant Professor, Program Director, and Department Chair, University of Charleston, Department of Athletic Training, Charleston, West Virginia

HONORS AND RECOGNITION

2006	Outstanding Young Alumni at Indiana State University in the Department of Athletic Training
2006	West Virginia Athletic Trainer of the Year
2007	2007 Who's Who of American Women