

2006

# NCAA Division I head coaches perceptions of job task importance of the ATC

Mark Alan Snow  
*San Jose State University*

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NCAA DIVISION I HEAD COACHES PERCEPTIONS OF  
JOB TASK IMPORTANCE OF THE ATC

A Thesis Report

Presented to

The Faculty of the Department of Kinesiology

San Jose State University

In Partial Fulfillment

Of the Requirements for the Degree

Masters of Arts

By

Mark Alan Snow

August 2006

UMI Number: 1438594

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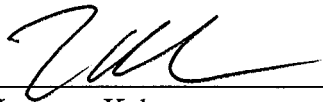
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Leamor Kahanov



Jeff Roberts



Barbara Conry

APPROVED BY THE UNIVERSITY



Abstract

NCAA DIVISION I HEAD COACHES PERCEPTIONS OF  
JOB TASK IMPORTANCE OF THE ATC

by Mark A. Snow

The purpose of this study was to identify the perceptions of NCAA Division I head coaches' from high risk and low risk injury sports towards on the job task importance of the athletic trainer. The Coaches Perceptions of Athletic Training Survey Instrument (CPAT) was provided to a systematic sample of four head coaches from 40 identified universities. Descriptive statistics were used to assess 5-point Likert scale answers and demographic information. The study suggests that overall head coaches perceive all tasks under the NATA delineated domains of athletic training as essential. Four of the tasks included in the CPAT had a score below 4.0. In conclusion, Certified Athletic Trainers should consider educating the coaching staff for their respective teams on a yearly basis about the tasks an ATC performs and policies that need to be upheld in all situations of athlete injury.

## ACKNOWLEDGEMENTS

I would like to thank many people for all of their assistance towards the completion of this project. Dr. Leamor Kahanov for her encouragement and patience through the whole process. Jeff Roberts and Barbara Conry for being part of the committee. My former Stanford University graduate assistants (Patrick Jenkins, Maureen Conroy, Shyla Penn, Ralph Diaz, and Mike Burns) for their assistance with the surveys. Most of all I would like to thank my grandmother, Elaine Snow, for all of her support throughout graduate school. If it were not for her, I would not be where I am at today.

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Chapter 1  
INTRODUCTION

The head coach and athletic trainer relationship is vital to the well being of the athlete. Determining head coaches' perceptions of athletic training including tasks deemed essential may establish if a need exists for athletic trainers to take an active role in educating the coaching staffs of the many tasks a Certified Athletic Trainer performs. This may enhance professional relationships and ultimately aid in the prevention, treatment, and rehabilitation of athletic injuries. The purpose of this study was to identify the perceptions of National Collegiate Athletic Association (NCAA) Division I head coaches from high risk and low risk injury sports towards on the job task importance of the Certified Athletic Trainer (ATC).

All data and information included in this thesis was compiled into a journal article for submission to the *Journal of Athletic Training* (Chapter 2). The expanded support material (Chapter 3) was the original project proposal consisting of three sections: A) the introduction, B) the review of literature, and C) the procedures of measurement.

In Section A, the introductory support material includes the problem statement that the head coach/athletic trainer relationship is vital towards the success of the sports medicine team and the success of the athlete. A need exists to determine head coaches' perceptions of on the job task importance of the Certified Athletic Trainer. The purpose was to identify the perceptions of NCAA Division I head coaches' from high and low risk sports towards on the job task importance of the Certified Athletic Trainer. Also included in the introduction are the significance of the problem, null hypotheses, delimitations, limitations, and definition of terms.

The review of literature in Section B was performed to explore any previous literature done on head coaches' perceptions of their Certified Athletic Trainer as well as other support materials that were essential to our procedures of measurement. The literature review was divided into four segments: 1) coaches' perceptions of athletic trainers, 2) student athletes' perceptions of athletic trainers, 3) the NATA Role Delineation Study, and 4) recommendations and guidelines for appropriate medical coverage of intercollegiate athletics.

The procedures of measurement in Section C includes a systematic sample of 40 chosen schools within NCAA Division I. Four head coaches from each of those 40 schools were selected to receive a questionnaire. Two of those head coaches coached a high risk injury sport and two coached a low risk injury sport. A Coaches' Perceptions of Athletic Training Survey or CPAT was used as an assessment tool to assess perceptions of the Certified Athletic Trainer. Also included in this section are the pilot study, procedures, data analysis, and project completion.

In conclusion, the study stated that head coaches from the Division I level deemed all Certified Athletic Trainer job tasks as essential. The current study could also be used to assess different levels of sports participation and could be enhanced by using the most recent edition of the NATA Delineated Domains in producing the survey questions. Overall, Certified Athletic Trainers should consider implementing an education program for coaching staff geared towards educating them on all the tasks they perform, as well as university policies and procedures that need to be upheld in all situations of athlete injury.

Chapter 2  
JOURNAL ARTICLE

**NCAA DIVISION I HEAD COACHES PERCEPTIONS OF  
JOB TASK IMPORTANCE OF THE ATC**

by

**Mark Snow, ATC  
San Jose State University  
University of Nebraska Omaha  
6001 Dodge Street  
Omaha, NE 68182-0284  
Phone: (402) 554-3170  
Fax: (402) 554-3697  
masnow@mail.unomaha.edu**

**Key Words:** ATC, Role Delineation Study, task importance, job responsibilities.



## Abstract

### NCAA Division I Head Coaches Perceptions of Job Task Importance of the ATC

**Context:** Determining head coaches' perceptions of athletic training may enhance professional relationships and ultimately improve overall athlete healthcare.

**Objective:** Identification of NCAA Division I head coaches' perceptions of athletic trainers based on affiliation with high (HR) and low injury risk (LR) sports.

**Design:** NCAA Division I head coaches (2-HR and 2-LR) were selectively chosen from a systematic sample of 40 identified universities and mailed the Coaches' Perceptions of Athletic Training Survey. The CPAT survey was designed using a 5-point Likert scale.

**Setting:** Division I Universities

**Patients or Other Participants:** NCAA Division I head coaches (2-HR and 2-LR) were selectively chosen from a systematic sample of 40 identified universities.

**Intervention(s):** The Coaches' Perceptions of Athletic Training Survey Instrument (CPAT) was designed based on the NATA delineated domains outlined in the 1999 NATA Role Delineation study. The CPAT included questions on all six domains and tasks based on the 5-point Likert scale.

**Main Outcome Measure(s):** Descriptive statistics were used to assess answers on domain importance and demographic information. A T-test was used to assess perception differences between HR and LR.

**Results:** Tasks deemed less essential with a mean average below 4.0 included: identifying safety hazards, monitoring participants and environmental conditions, facilitating physical conditioning, and educating the public. Two NATA delineated domain tasks were statistically significant different in two areas: 1) treatment, rehabilitation and reconditioning and 2) maintaining records.

**Conclusions:** The study suggests that head coaches from both HR and LR sports perceived all tasks as essential. Head coaches suggest that ATC's should not be an essential element in monitoring participants and environmental conditions, determining safety hazards, and facilitating physical conditioning to minimize risk of injury. ATC's should consider educating the coaching staff for their respective teams on a yearly basis about the tasks an ATC performs and policies that need to be upheld in all situations of athlete injury. ATC's should consider putting emphasis on policies regarding return to play, risk management, and injury prevention.

## Introduction

Among sports medicine professionals, the Certified Athletic Trainer (ATC) has the greatest opportunity for involvement in multiple facets of an athlete's health care. These facets involve various phases of health care including, but not limited to, pre-participation examination of the athlete, initial and acute injury care, injury rehabilitation, return to participation, and the overall well being of the athlete.<sup>1</sup> In addition to direct athlete involvement, the ATC coordinates communication among sports medicine team professionals, coaches, and family. A lack of understanding among one or all parties on the sports medicine team can impede the healthy return to practice and ultimately peak performance of the athlete.<sup>2</sup>

Vergeer and Hogg<sup>3</sup> stated the first person athletes often report to when injured was the coach, thus the coach was a major influence and essential component in overall athlete health care and the prosperity of the ATC/head coach relationship. A misunderstanding by the coach regarding the athletic trainer's job duties may inhibit prompt medical attention and/or overall healthcare and thus it was important to assess coaches' perceptions of ATC's job duties under the NATA delineated domains in order to better communicate and/or educate coaches based on their preconceived notions.<sup>3</sup> Unruh<sup>2</sup> determined that coaches from high risk (HR) sports have a higher perception of ATC job duties as compared to low risk (LR) sports based on the increased amount of interaction between the ATC and HR sports. Previous studies on head coaches' perceptions of ATC duties have been reported as positive, which means a high mean

score on the perception surveys. These studies are somewhat disputed by athletic trainers because the athletic training profession might not be completely understood by coaches as well as the general public.<sup>4-8</sup> Cutrufello<sup>5</sup> stated that perceptions of ATC's performance were greater when coaches surveyed displayed a better understanding of NATA delineated job domains and duties. Determining head coaches' perceptions of athletic training, including tasks deemed essential, may enhance professional relationships and ultimately aid in the prevention, treatment, and rehabilitation of athletic injuries.<sup>5</sup> The purpose of the study was to identify the perceptions of NCAA Division I head coaches from HR and LR sports toward on the job task importance of the athletic trainer.

## **Methods**

Four NCAA Division I head coaches (2-high injury and 2-low injury) from a systematic sample of 40 identified universities (N=160) were selected for inclusion in the study. The 2000-2001 National Directory of College Athletics was used in the selection of schools with HR and LR sports.<sup>9</sup> These universities were chosen by a systematic sample from all NCAA Division I schools. The only requirement for inclusion in the study was that the university must have two HR and two LR sports. Sports were selected to include a wide variety of high and low risk injury sports (Table 1). HR and LR sports were determined by Appropriate Medical Coverage for Intercollegiate Athletics (AMCIA) guidelines.<sup>10</sup> AMCIA developed a rating system using injury rates, potential for catastrophic injury, and treatment/rehabilitation demands for both time loss and non-time loss injuries per sport. The basis for the determination for HR and LR sports was health care units or HCU's. Each sport was assigned a base HCU range of 1-4. A base

HCU of 3.0 or greater was determined a HR sport and a base HCU of 2.9 or lower was determined as a LR sport.<sup>7</sup> Table 2 describes the base HCU's and frequencies of all sports included in this survey.

The Coaches' Perceptions of Athletic Training Survey Instrument (CPAT) was designed based on the NATA delineated domains outlined in the 1999 Role Delineation study using a 5-point Likert scale.<sup>8</sup> An additional question was added at the end of each domain to ask the overall importance of the domain provided. The CPAT took each task from the NATABOC 1999 Role Delineation Study and converted them into question form. Thus the CPAT included questions on all six domain and tasks based on a 5-point Likert scale (5, very essential to 1, not essential at all) of job importance. Upon Human Subjects approval, a pilot study was conducted to assess validity and clarity of the instructions and questions used in the survey. Nine head coaches were surveyed in the pilot study. Minimal modifications to increase clarity were necessary based on the pilot study. The content of the questions were not changed or eliminated.

One hundred sixty head coaches from 40 NCAA Division I colleges and universities were mailed a survey packet that included a letter introducing the researcher, intent of the study, directions for the survey, implied consent upon survey return, and the CPAT itself.<sup>12</sup> Return envelopes were coded to determine respondents for future mailings. Head coaches were allowed three weeks to complete and return the survey. After three weeks, a reminder postcard was sent requesting to completion and return of the survey. Subjects who did not return the survey after five weeks received an additional questionnaire packet. Data was compiled and analyzed using SPSS software.

Descriptive statistics (mean and standard deviation) were used to assess 5-point Likert scale answers and demographic information. HR and LR sports were compared through a T-test to determine if statistically significant differences in perceptions between HR and LR head coaches existed ( $t_{74} = 1.98, P > .05$ ).<sup>13</sup>

## **Results**

Of the 160 surveys mailed, 75 were returned (47%). Fifty-two percent of surveys returned were from head coaches of high injury risk sports and 48% from low injury risk sports. Seventy-eight percent (58) of the head coaches were male and 22% (16) were female. Team gender consisted of 60% male (45) and 40% female (30). Coaches had a mean age of 43 (range 25-71) and a mean of 11 years experience with working with an ATC (range 1-40). Overall mean perception scores of coaches on each domain were above 4.0 (Table 3).

Tasks deemed less essential with a mean average below 4.0 included: Domain 1) Prevention, Tasks E,F,&G; identifying safety hazards to minimize risk of injury, monitoring participants and environmental conditions for safe participation, facilitate physical conditioning to minimize risk of injury, and Domain 6) Professional Development and Responsibility, Task C; educating the public regarding athletic trainer's roles (Table 4). Two tasks within the NATABOC delineated domains had statistically significant differences between HR and LR sports: 1) Domain 4: Treatment, Rehabilitation & Reconditioning, Task F; educate the appropriate individual(s) in the treatment, rehabilitation and reconditioning of injuries, illnesses and/or conditions using applicable methods and materials to facilitate recovery, function and/or performance and

2) Domain 5: Organization & Administration, Task F; maintain records using an appropriate system to document the services rendered and provide for continuity of care (Table 5). Degrees of freedom was determined as  $df=74$ , with a critical value of  $t=1.98$ .<sup>13</sup>

### **Discussion**

The current study suggested that overall head coaches from both HR and LR sports perceived all tasks under the BOC delineated domains of athletic training as essential (average score of 4.46). This implied that head coaches from both HR and LR sports deemed all tasks an athletic trainer performs (under the guidelines of the NATA and the Role Delineation study) as essential to overall athlete healthcare. Unruh<sup>14</sup> (2005) determined that the cumulative score on a perception questionnaire symbolizes a rating of approval of the ATC.

Since four of the abovementioned tasks have a mean score below 4.0, head coaches may perceive that they should have more responsibility or equal responsibility in the following; 1) identifying safety hazards in practice and participation areas as well as identifying hazardous sports equipment, and 2) determining when athletes should and should not participate in practices and sporting events due to certain environmental conditions. The study also suggests that head coaches believe it was not essential that the ATC plays a prominent role in conditioning programs to minimize the risk of athlete injury. Furthermore, the results also suggested that it was not deemed essential by the head coaches that ATC's educate the public about the roles and standards of practice of the athletic trainer.

The results of the first two tasks mentioned (1 and 2) was alarming due to the fact that ATC's are better educated and trained than most head coaches in most scenarios of determining health and environmental factors that may be dangerous to the athlete. The ATC can also provide helpful information towards conditioning programs by providing specific information to help the programs to minimize injuries sustained during the sports competitive seasons. Furthermore, the survey suggested that head coaches perceive it necessary for ATC's to perform job duties specific to engaging with athletes rather than educating personnel and the public regarding the roles of an ATC. Previous literature was contrary to the coaches' perceptions on public education, which suggests that head coaches might not fully understand the roles and responsibilities of the ATC, thus making their perceptions of overall athletic trainer duty importance difficult to fully evaluate.<sup>4-8</sup>

The current study indicates HR coaches have a significantly higher score on two of the following tasks: 1) Domain 4: Treatment, Rehabilitation and Reconditioning, Task F-educate the appropriate individual(s) in the treatment, rehabilitation and reconditioning of injuries, illnesses and/or conditions using applicable methods and materials to facilitate recovery, function and/or performance and 2) Domain 5: Organization & Administration, Task F; maintain records using an appropriate system to document the services rendered and provide for continuity of care (Table 5). This finding may be due to HR coaches having a greater contact with the ATCs due to a higher frequency of injury.<sup>14</sup>

Results regarding Domain 4 - Task F (HR having a significantly higher perception than LR) indicates that either the HR coaches believed the ATC provides appropriate guidance in the treatment, rehabilitation, and reconditioning of injuries or it

may also suggest that the LR coach perceives that the ATC does not provide adequate amounts of coverage aspect to their athletes. A closer interaction by the ATC with the HR head coach and/or the athlete compared to the LR head coach and/or athlete may reinforce the results of Domain 5 – Task F.

Results on Domain 5 – Task F suggest that there may be a relationship between an increased interaction with the HR head coach and the ATC due to an increased incident of injury with that particular sport as compared to a LR sport.<sup>2,14</sup> The increased injury rate may lead to increased interaction between ATC and head coach, thus a better understanding of the records system as it involves injury tracking. Unruh<sup>2,14</sup> determined that high profile sports demonstrated an increased level of approval over low profile sports. He also suggested this may be due to the opinion that ATC's offer more attention to athletes in high profile sports over low profile sports. In addition, some sports medicine departments are not adequately staffed with ATC's to cover all sports and high profile sports thus obtain the majority of full time ATC coverage.

Further study needs to be conducted to determine coaches' knowledge of the ATC's job duties. Wanzie<sup>7</sup> performed a survey of high school coaches' knowledge using the NATA Role Delineation Study, and determined that although the overall scores were good, coaches' responses regarding the questionnaire may indicate that the ATC profession might not be completely understood. Thus, the ability of coaches' ability to comprehend the survey questions given and what each domain entailed was an essential component in determining the accuracy of the survey and should be considered a limitation to this and these types of studies.



## **Conclusions**

Overall, head coaches at the NCAA Division I level deemed ATC job tasks as essential. More information was necessary to determine if head coaches perceive that they or other members of their team's staff were more qualified to perform certain duties outlined in the NATA Role Delineation Study.

The current study could be enhanced by assessing different professional, collegiate, and high school levels to determine if there is a significant difference in scores between the different levels of participation. In addition, conducting the current study using the up-to-date NATA Delineated Domains is recommended by the author.<sup>15</sup>

Overall, the study suggests that both HR and LR coaches perceived that all job tasks that an ATC performs are essential. ATC's should consider educating the coaching staff for their respective teams on a yearly basis about the tasks an ATC performs and policies that need to be upheld in all situations of athlete injury. ATC's should consider putting emphasis on policies regarding return to play, risk management, and injury prevention.

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**Table 1: High and Low Risk Injury Sports Categories** (Appropriate Medical Coverage for Intercollegiate Athletics<sup>10</sup>)

<b>HIGH INJURY RISK SPORTS</b>	<b>LOW INJURY RISK SPORTS</b>
Football	Baseball
Gymnastics-M & W	Basketball-M & W
Ice Hockey-M	Cross Country M & W
Lacrosse-M	Cheerleading
Soccer-M	Fencing M & W
Indoor Track-M	Field Hockey
Outdoor Track-M	Golf M & W
Wrestling	Ice Hockey-W
	Lacrosse-W
	Rifle
	Rowing-M & W
	Skiing
	Soccer-W
	Softball
	Swimming/Diving-M & W
	Tennis-M & W
	Indoor Track-W
	Outdoor Track-W
	Volleyball-M & W
	Water Polo-M & W

**TABLE 2: AMCIA Base Health Care Units By Sport** (Taken from the National Athletic Trainers' Association by the Task Force to Establish Appropriate Medical Coverage for Intercollegiate Athletics<sup>10</sup>)

<b>Sport</b>	<b>Injury Rate Equivalent (IRE)</b>	<b>Catastrophic Index (CI)</b>	<b>Treatment/Injury Equivalent (Tx/I)</b>	<b>Base Health Care Units</b>
Baseball	2	2	3	2.3
Basketball-W	3	2	3	2.7
Basketball-M	3	3	2	2.7
Cross Country-W	2	1	3	2.0
Cross Country-M	2	2	3	2.3
Cheerleading	3	4	1	2.7
Fencing-W	1	1	1	1.0
Fencing-M	2	1	1	1.3
Field Hockey	3	2	3	2.7
Football	4	4	3	3.7
Golf-W	1	1	1	1.0
Golf-M	1	1	1	1.0
Gymnastics-W	4	4	4	4.0
Gymnastics-M	3	4	3	3.3
Ice Hockey-W	3	1	2	2.0
Ice Hockey-M	3	4	2	3.0
Lacrosse-W	3	2	3	2.7
Lacrosse-M	3	3	3	3.0
Rifle	1	1	1	1.0
Rowing-W	2	1	3	2.0
Rowing-M	1	1	3	1.7
Skiing	2	4	2	2.7
Soccer-W	4	1	3	2.7
Soccer-M	4	2	3	3.0
Softball	2	1	3	2.0
Swimming/Diving-W	3	1	3	2.3
Swimming/Diving-M	2	3	2	2.3
Tennis-W	2	2	2	2.0
Tennis-M	2	2	2	2.0
Track Indoor-W	3	1	4	2.7
Track Indoor-M	3	2	4	3.0
Track Outdoor-W	3	1	4	2.7
Track Outdoor-M	3	2	4	3.0
Volleyball-W	3	1	4	2.7
Volleyball-M	2	1	2	1.7
Water Polo-W	3	1	3	2.3
Water Polo-M	2	3	2	2.3
Wrestling	4	2	3	3.0

**TABLE 3: Overall Mean Perception Scores**

<b>Domain:Task</b>	<b>Total</b>
1:01	4.08
1:02	4.24
1:03	4.05
1:04	4.09
1:05	3.93
1:06	3.97
1:07	3.81
1:08	4.7
1:09	4.3
1:Overall	4.2
2:01	4.56
2:02	4.72
2:03	4.73
2:04	4.77
2:05	4.57
2:06	4.72
2:07	4.77
2:Overall	4.73
3:01	4.73
3:02	4.8
3:03	4.72
3:04	4.22
3:05	4.44
3:Overall	4.67
4:01	4.76
4:02	4.77
4:03	4.33
4:04	4.64
4:05	4.59
4:06	4.75
4:Overall	4.73
5:01	4.5
5:02	4.2
5:03	4.09
5:04	4.61
5:05	4.19
5:06	4.61
5:Overall	4.41
6:01	4.68
6:02	4.61
6:03	3.86
6:04	4.5
6:Overall	4.33

**TABLE 4: Mean Perception Score Under 4.0 by Task (N=75)**

<b>Domain</b>	<b>Task</b>	<b>Score</b>
Prevention	Identify safety hazards in activity areas and equipment by following established procedures to make appropriate recommendations and minimize risk of injury	3.93
Prevention	Monitor participants and environmental conditions following accepted guidelines to make recommendations regarding safe participation	3.97
Prevention	Facilitate physical conditioning by designing and implementing appropriate programs to minimize risk of injury	3.81
Professional Development & Responsibility	Educate the public about the role and standards of practice of the athletic trainer through informal and formal means to improve the public's ability to make informed decisions about the use of athletic training	3.86

**TABLE 5: Delineated Tasks with a Statistically Significant Difference between HR and LR Sports**

<b>Domain</b>	<b>Task</b>	<b>t</b>
Treatment, Rehabilitation & Reconditioning	Educate the appropriate individuals in the treatment, rehabilitation and reconditioning of injuries, illnesses and/or conditions using applicable methods and materials to facilitate recovery, function, and/or performance	2.216
Organization & Administration	Maintain records using an appropriate system to document the services rendered and provide for continuity of care	2.006
df=74	t significant at p<.05	Critical Value of t = 1.98

Chapter 3

EXPANDED SUPPORT MATERIAL PROJECT PROPOSAL



## Section A

### INTRODUCTORY SUPPORT MATERIAL

Among sports medicine professionals, the Certified Athletic Trainer (ATC) is most involved with injury prevention and the overall well being of the athlete (Arnheim & Prentice, 1999). The ATC is directly responsible for all phases of health care within an athletic environment including but not limited to preparticipation examination of the athlete, initial and acute injury care, injury rehabilitation, and return to play. Each phase is crucial in providing the athlete an opportunity to perform at peak performance. In addition, the ATC coordinates communication between athlete, parent, coach, and team physician from initial injury to full return to activities (Arnheim & Prentice). An athletic trainer is “the one individual who deals with the athlete from the time of initial injury, throughout the period of rehabilitation, until the athlete’s complete, unrestricted return to practice or competition” (Arnheim & Prentice, p. 8). Thus, it is imperative that good communication exists between all parties in the athletic arena. A lack of understanding among one or all parties seeking an athlete’s return to participation can impede healthy return to practice and ultimately peak performance, thus the purpose of this study was to determine head coaches’ perceptions about athletic trainer job tasks.

In order to optimize an athletes return from injury the athletic trainer must precipitate professional relationships with many personnel in the athletic arena such as: the athlete, parents, team physician, coaches, school nurse, team orthopedist, team dentist, team podiatrist, physician’s assistants, strength and conditioning coach, sports psychologists, physical therapists, exercise physiologists, team nutritionist, equipment

personnel, referees, and many more (Arnheim & Prentice, 1999). A positive association between the athlete and athletic trainer is vital for the overall success of injury prevention and injury rehabilitation (Unruh, 1998). The first person athletes report to when they are injured is the coach, thus the coach is a major influence and essential component in overall athlete healthcare and the prosperity of the ATC/head coach relationship (Vergeer & Hogg, 1999).

The athletic trainer must also form a cohesive relationship with every member of the sports medicine team (coach, team physician, and athletic trainer). This team holds the closest relationship to the injured athlete (Arnheim & Prentice, 1999). Since coaches and ATC's interact on a daily basis, the relationship between the two is vital towards the ultimate goal of optimal athlete health care. The head coach has always been responsible in assisting the athletic trainer in prevention of athletic injuries by assisting in, for example, proper fitting of sports equipment, maintenance of sports equipment to safety standards, awareness of factors that produce injury, proper prevention to avoid foreseeable injuries, proper coaching techniques to prevent acute and chronic injuries, and environmental factors that affect athlete safety (Arnheim & Prentice). "The athletic trainer must practice patience and earn the respect of the coaches so that his or her judgment in all athletic training matters is fully accepted." (Arnheim & Prentice, p. 6) A misunderstanding of job duties may prohibit optimal athlete healthcare, thus it was important to assess coaches' perceptions of ATC's duties in order to better communicate and/or educate coaches based on their preconceived notions.

The physician and the athletic trainer should have sole discretion with regards to the health and well being of the athlete. Proper job duties and professional relationship must be supported by all coaches and ultimately the athletic director in order to ensure proper delivery of athlete healthcare (Arnheim & Prentice, 1999).

Because coaches are a part of the decision making process regarding the participation of their athletes, conflicts can arise between the head coach and athletic trainer due to different objectives on athlete participation. Head coach and ATC can become entangled in role conflicts, moral doubts and ethical criticism regarding injured athletes and their return to play (Flint & Weiss, 1992). In turn, misplaced blame can arise causing the head coach to believe that the athletic trainer is not performing well in some or all of his or her duties. Most commonly, coaches indicate that the athletic trainer is not returning athletes to full participation as soon as possible post-injury or that he or she is too conservative with the athlete rehabilitation potentially causing negative perceptions of the athletic trainer (Cutrufello, 1999). A coach who is not confident in the ATC can extend his perceptions to the athlete, and potentially deter the athlete from seeking the ATC at time of injury. This can put the athlete's overall healthcare in jeopardy. In addition, the ATC and athlete interactions is critical to successful rehabilitation (Fisher, Mullins & Frye, 1993). Educating coaches concerning athletic trainer's on the job duties was one way to alleviate some of the pressure and conflict facing the ATC and other sports medicine personnel. Assessing the head coaches' perceptions may accomplish the objective of better communication among the sports medicine team. Blyn (1991) determined that high school coaches did not completely understand the roles an athletic

trainer completes within a given day. Blyn also stated that coaches felt Emergency Medical Technicians (EMT's) or coaches were more qualified than the ATC to determine an athlete's return to play status. Inaccurate perceptions can delay an athlete's return to participation and diminish overall well being (Flint & Weiss, 1992). Therefore, understanding head coaches' perceptions of ATC's duties can lead to proper education and enhancement of the athlete health care system.

The ATC performs professional duties according to prescribed guidelines given by the National Athletic Trainers' Association (NATA). ATC guidelines were established by the NATA to provide athletic trainers criteria they must possess and maintain to practice in a health care setting. The NATA defined six domains of athletic training in the 1999 Role Delineation Study (NATABOC, 1999). These domains (duties) include: (1) prevention, (2) recognition, evaluation, and assessment, (3) immediate care, (4) treatment, rehabilitation, and reconditioning, (5) organization and administration, and (6) professional development and responsibility (see Appendix A). Athletic trainers' delineated domains provide an outline of the duties that should be expected during on the job interactions. These delineated domains translate into daily activities, for example, making ice bags, directing athlete's rehabilitation, and advising coaches on the status of their injured athletes (Arnheim & Prentice, 1999). Specific athletic training duties vary depending by setting, but still are guided by the six domains of athletic training. Appendix B depicts the knowledge and tasks necessary for an ATC to perform (NATABOC, 1995). Coaches should have a working knowledge of these domains in order to interact with the ATC, and ultimately to benefit the athlete (Cutrufello, 1998).

Another hurdle could possibly be that coaches from high injury risk sports might also have different perceptions of the tasks an athletic trainer should perform due to the increased rate of injury as compared to coaches from low injury risk sports.

The ATC must have a good relationship with the head coach to function properly in the sports medicine arena according to the six domains of athletic training (NATABOC, 1999). Head coaches' understanding of the athletic training professional duties have yet to be assessed.

#### *Statement of the Problem*

The head coach/athletic trainer relationship is a vital component of the sports medicine team. A number of coaches do not fully understand all the duties an ATC performs (Blyn, 1991). Determining head coaches' perceptions of athletic training, including tasks deemed essential to them and their team, may enhance professional relationships and ultimately aid in the prevention, treatment and rehabilitation of athletic injuries.

#### *Statement of Purpose*

The purpose of the study was to identify the perceptions of NCAA Division I head coaches from high and low injury risk sports toward on the job task importance of the athletic trainer. Coaches assessed tasks performed by an ATC regarding the six athletic training NATA delineated domains based on their current perceptions (NATABOC, 1999).

### *Significance of the Problem*

Educating a head coach regarding the tasks an ATC performs is one of the best ways to improve the head coach/athletic trainer relationship (Arnheim & Prentice, 1999). Once the head coach understands all of the tasks an ATC performs then the relationship between head coaches and athletic trainers, the overall success of the athlete, team and sports medicine team can be improved (Cutrufello, 1998). An athletic trainer can potentially use information from this current study to determine which roles the head coach feels are important for an ATC to perform, and whether any of the domains or tasks are deemed unessential. It was important that the head coach understands the roles of the ATC and respects their recommendations (Cutrufello). Athletic trainers may be able to use this information to educate head coaches on job duty importance, potentially improving the head coach/ATC relationship, and enhancing athlete health care based on any misconceptions occurred in the current study.

### *Null Hypotheses*

This study proposed the following null hypotheses:

1. Head coaches from high injury risk sports and low injury risk sports will not have a significant difference between the two groups.
2. There will be no difference between the six domains of Athletic Training on the overall importance score.
3. The domain of Professional Development and Responsibility will not have the overall lowest importance score.

### *Delimitations*

This study was delimited by the following factors:

1. Only NCAA Division I head coaches were included in the study. Any surveys completed by anyone other than the head coach will be eliminated from the survey.
2. This study was in no way conducted to determine head coaches' perceptions of his/her team's athletic trainer. It was an evaluation towards athletic trainer task importance.
3. Subjects were surveyed through the use of a mailed questionnaire.
4. Stanford University and San Jose University were eliminated from the survey due to their relationships with the researcher.
5. High and low injury risk sports are determined by health care units (HCU). All sports with a HCU of 3.0 or higher are considered high injury risk sports and those sports below 3.0 are considered low injury risk sports.
6. High injury risk sports include: football, men's and women's gymnastics, men's ice hockey, men's lacrosse, men's soccer, men's track and field, and wrestling.
7. Low injury risk sports included: baseball; men's and women's basketball; men's and women's cross country; cheerleading; men's and women's fencing; field hockey; men's and women's golf; women's ice hockey; women's lacrosse; rifle; men's and women's rowing; skiing; women's soccer; softball; men's and women's swimming; men's and women's diving; men's and women's tennis; women's track and field; men's and women's volleyball; and men's and women's water polo.

*Limitations*

This study will be limited by the following factors:

1. The researcher relies on the fact that head coaches answered questions honestly and to the best of their knowledge.
2. The researcher relies on the fact that the language in the survey was clear and concise.
3. The selected population of NCAA Division I head coaches does not provide the perceptions of Division I assistant coaches, nor coaches at other levels.
4. Head coaches whose perspective teams are in-season during the period of survey might not return their surveys as compared to those coaches whose teams are out of season.
5. The wording of the survey was taken from the NATA Role Delineation Study and was intended for athletic trainers. Head coaches might not have been able to comprehend some of the vernacular.
6. Health care units (HCU) are taken from the Recommendations and Guidelines for Appropriate Medical Coverage of Intercollegiate Athletics (AMCIA) published by the NATA Task Force to Establish Appropriate Medical Coverage for Intercollegiate Athletics. These health care units are averages based on injury surveillance studies in many sports medicine settings. HCU's do not, however, reflect the actual base health care units that can be measured for each sport at each institution included in this survey, thus some specific sports at some universities may be misclassified into a high or low injury risk sport.



7. Coaches from a high injury risk sport may as well have been a head coach of a low injury risk sport. Example: Men's track & field (HCU 3.0) and Women's track and field (HCU 2.8)

*Definition of Terms*

The following terms are operational definitions for this study.

*Athlete.* A person who participates in an organized sport in high school, college or professional sport and is under the care and supervision of a sports medicine team.

*Certified Athletic Trainer (ATC).* An allied health professional who provides health care to organized athletic populations and was certified by the National Athletic Trainers' Association (NATA 1999).

*Head Coach.* NCAA Division I coach solely responsible for his/her team including all the decision making, win/loss record and graduation.

*Health Care Units (HCU).* HCU is based on the Recommendation and Guidelines for Appropriate Medical Coverage of Intercollegiate Athletics (AMCIA). HCU was an equation which utilizes injury rates (IRE), catastrophic injury risk (CI), and treatment demands per injury (Tx/I) as a way of determining the level of appropriate medical coverage for each sport (NATA, 2000).

*High Injury Risk Sports.* Sports that have a base health care units of 3.0 or greater (NATA).

*Low Injury Risk Sports.* Sports that have a base health care units of 2.9 or lesser (NATA).

*National Athletic Trainer's Association (NATA).* The NATA is committed to advancing, encouraging and improving the athletic training profession (NATA, 2000).

*The Board of Certification, Inc. (BOC).* The BOC is a certifying agency for athletic trainers and identifies for the public, quality healthcare professionals through a system of certification, adjudication, standards of practice and continuing competency programs. Formerly known as the NATABOC (BOC, 2004).

*Role Delineation Study (RDS).* A study to determine athletic trainers on the job tasks and knowledge essential to practice competently. As a result of the RDS, six performance domains for ATC's were outlined: 1) prevention; 2) recognition, evaluation, and assessment; 3) immediate care; 4) treatment, rehabilitation, and reconditioning; 5) organization and administration; and 6) professional development and responsibility (NATABOC, 1999) (see Appendix B).

*Sports Medicine Program.* An active team in an intercollegiate setting focused on injury prevention, treatment, and rehabilitation and consisting of: the team physician, ATC, coach, athlete, athlete's parents, athletic administration, family physician, and student athletic trainers (American Academy of Orthopaedic Surgeons, 1991)

*Sports Medicine Team.* The relationship of the team physician, coach, and athletic trainer concerning the athlete (Arnheim & Prentice, 1999)

*Team Physician.* A M.D. or D.O. who are responsible for treating and coordinating the medical care of members of an athletic team. He/she must possess special proficiency in the care of musculoskeletal injuries and medical conditions encountered in sports (AOOSM et al. 2000).

### *Summary*

Athletic trainers have many roles and responsibilities in sports healthcare, including: prevention; recognition, evaluation, and assessment; immediate care; treatment, rehabilitation, and reconditioning; organization and administration; and professional development and responsibility (NATABOC, 1999) (see Appendix B). Domains have been delineated by the NATA as skills and tasks necessary to perform prudently as an athletic trainer and optimize athlete healthcare. The maintenance of professional relationships and communication within the sports medicine team were also essential to optimize athlete health care. Thus, relationships between the athletic trainer and the remainder of the sports medicine team (physician and coach) are necessary to achieve the goal of optimal athlete healthcare (Arnheim & Prentice, 1999).

The athletic trainer and head coach relationship are a vital component to the overall success of the athlete, team and sports medicine program (Flint & Weiss, 1992). Coaches are part of the decision making process regarding the participation of their athletes, therefore conflicts between the head coach and athletic trainer can arise due to differential objectives on athlete participation based on miscommunication of duties. Misplaced blame can cause the head coach to believe that the athletic trainer was not performing well in some or all of his/her roles. Coaches from high injury risk sports might also have different perceptions of the tasks an athletic trainer should perform due to the increased rate of injury as compared to coaches from low injury risk sports. So far, a lack of research existed to determine if perceptions between high and low injury risk sports based on the AMCIA guidelines differ. Results are compiled in to a journal article

for the *Journal of Athletic Training* and submitted for publication according to Authors Notes (see Appendix D).

## Section B

### REVIEW OF LITERATURE

The purpose of the current study was to identify the perceptions of NCAA Division I head coaches of high and low injury risk sports toward on the job task importance of the athletic trainer. Coaches' perceptions will be based on the tasks performed by an athletic trainer on the six athletic training NATA delineated domains (NATABOC, 1999), therefore the following literature review was an exploration into head coaches' perceptions of Athletic Training and applicable research. The literature review is divided into four sections: 1) coaches' perceptions of athletic trainers, 2) student athletes' perceptions of athletic trainers, 3) the NATA Role Delineation Study, and 4) recommendations and guidelines for Appropriate Medical Coverage of Intercollegiate Athletics.

#### *Coaches' Perceptions of Athletic Trainers*

The most recent study determining coaches' perceptions of ATC's and quality of care given to athletes was an unpublished masters thesis by Cutrufello (1998). Head and assistant coaches of 19 intercollegiate sports within NCAA Division I, II, and III were targeted in the study. A total of 345 NCAA Division I, II, & III coaches returned the survey consisting of two major parts: a modified knowledge questionnaire taken from Wanzie (1992) and a modified perception questionnaire taken from Unruh (1996). Independent T-tests revealed significant differences in perception scores of coaches from high and low profile sports, as well as coaches who communicate daily with the ATC and those coaches who do not. High profile sports were determined by Cutrufello by taking

those sports with the greatest public exposure (example: attendance), the highest injury rates, and the most medical attention (ATC and physician attendance). According to the NCAA, sports with the highest average practice injury rate for the 1994-95 season (expressed as injuries per 1,000 athlete exposures) were spring football, women's gymnastics and wrestling. Men's and women's basketball, based on Cutrufello's determination of high profile sports were also included in the high profile category. The survey also determined a significant correlation between the coaches' knowledge of the ATC's roles and the overall coaches' perception of the ATC. Noted was that the greater the communication between athletic trainer and coach, the more positive the perception of the athletic trainer.

Wanzie (1992) studied high school coaches' knowledge of ATC duties and the athletic training profession. A secondary issue explored was to whether coaches needed to be better informed concerning the care and prevention of athletic injuries and if a difference in knowledge base existed between coaches surveyed who had an ATC on staff as opposed to staffs lacking an ATC. A two-page questionnaire was mailed to 160 head football coaches within the Commonwealth of Pennsylvania. The questionnaire contained 24 close-ended questions including demographic information, ranking of an ATC's duties, and a section testing the coaches' knowledge of the ATC's duties. This final portion of the questionnaire was developed by Wanzie based upon work by Ray (1987) and the Role Delineation Study of NATA Curriculum Institutions (1990). The last eighteen questions determined the coaches' knowledge of the six ATC's duties from the Role Delineation Study (1990), those six skills included: 1) prevention of injuries, 2)

evaluation and recognition, 3) rehabilitation and conditioning, 4) education, 5) counseling, and 6) administration and organization. Coaches' responses were scored on a 5-point Likert scale with a scoring system of 1, strongly agree to 5, strongly disagree. Chi-squares were used to determine football coaches' knowledge on ATC's roles and responsibilities. Of the 160 surveys mailed, 85 were completed and returned. Results of the survey indicated the more years coaching experience, the more knowledge coaches had on ATC's roles and responsibilities; the greater amount of contact a coach had with a ATC, the greater the chance the coach could recognize the duties of the ATC. High school size played a role on the coach's knowledge of an athletic trainer's roles and responsibilities (larger high schools tend to have an ATC). Overall the study determined that coaches had a good working knowledge of ATC's roles and responsibilities. Wanzie concluded that although the overall scores for ATC knowledge were good, coaches' responses regarding the questionnaire may indicate that the athletic training profession might not be completely understood. Questions arose upon the coaches' ability to comprehend the six questions given and what each domain entailed. Ray (1987) confirmed Wanzie's association that coaches can be a valuable tool in evaluating athletic trainers. Since there is no published material documenting coaches' knowledge in the collegiate setting, further investigation into perceptions of the ATC was warranted. Thus a need existed to determine coaches' perceptions toward athletic trainers on the job task importance outlined by the delineated domains of the 1999 NATA Role Delineation Study.

*Student Athletes' Perceptions of Athletic Trainers*

Unruh (1998) performed a study to determine the perceptions student-athletes had of athletic trainers and of medical coverage provided by athletic departments at their institutions. The intent of Unruh's study was to assess differences between male and female athletes, high and low profile sports, and NCAA Division I and II schools. Questionnaires were mailed to 32 athletic training programs at 28 NCAA Division I and II schools. Eighteen of the programs participated and a total of 343 athletes completed the questionnaire. The questionnaire consisted of two sections: 1) 36 questions designed to determine a response (strongly agree to strongly disagree) along the 5-point Likert scale and 2) 14 "yes" or "no" questions, both were based on each domain from the Role Delineation Study (1996).

Cumulative mean scores for each subject were totaled. Each score presented a general rating for the athlete's perceptions of their athletic trainer. Mean scores were compared by conducting a t-test for independent samples between male and female athletes, high and low profile sports, and Division I and II institutions. To determine differences between cumulative mean scores of subgroups, a one way analysis of variance (ANOVA) was performed. Results indicated significant differences in perception scores between sex and sport profile, with male athletes having a higher perception of their athletic trainer than female athletes, and high profile sports incurring a higher perception of their athletic trainer than low profile sports. Male and females in low profile sports at Division II schools and females in high profile sports at Division II schools had significantly lower mean perception scores than the other subgroups. A lack



of literature based on the Role Delineation Study and coach/athletic trainer perceptions exists. In addition, there was no current literature using the 1999 RDS to determine perceptions of athletic trainers and/or RDS task importance.

#### *NATA Role Delineation Study*

The NATA Role Delineation Study was developed by the National Athletic Trainer's Board of Certification (BOC) and performed by Columbia Assessment Services to provide a clear assessment of the knowledge, skills and abilities which were essential for competent practice within the athletic training profession.

The NATA RDS was developed by a panel of experts and surveyed to 2,000 randomly selected ATC's to determine study reliability and validity. The panel of experts included ATC's, physicians, and physical therapists which represented a variety of practice settings, geographic regions, educational levels and years of experience. Thirty-six percent (716) of the surveys were returned and analyzed, Appendix C provides respondents' and panelists' importance ratings (NATABOC, 1999).

The study determined that six performance domains exist for ATC's to practice competently. These domains included: 1) prevention; 2) recognition, evaluation, and assessment; 3) immediate care; 4) treatment, rehabilitation, and reconditioning; 5) organization and administration; and 6) professional development and responsibility (NATABOC, 1999).

The Role Delineation Study (NATABOC, 1999) provides a comprehensive analysis of the work athletic trainers perform. This study provides the six domains of athletic training, with each domain containing a specific explanation of tasks. This study

was also used by Unruh (1998) to determine collegiate student athlete's perceptions of their athletic trainer. The RDS provides athletic trainers at every level strict guidelines the ATC must follow to practice athletic training within their domains. As well as providing national certification, the RDS has been used in many states to provide ATC's state certification to practice the profession of athletic training.

*Recommendations and Guidelines for Appropriate Medical Coverage of Intercollegiate Athletics*

In 1998, the NATA created a task force to establish Appropriate Medical Coverage for Intercollegiate Athletics (AMCIA). The goal of this task force was to address the issue of the increased exposures of student athletes to injury due to the expansion of regular seasons of competition, out of season practices and year around strength and conditioning programs. Another concern was the elevated number of injuries, serious injuries and deaths of athletes at the collegiate level. The task force was made up of ATC's representing all competitive levels (NCAA Division I, II, III, NAIA, and NJCAA). Other members included were from the College Athletic Trainer's Society, NATA College and University Athletic Trainers' Committee, NATA Pronouncements Committee, and the NCAA Committee on Competitive Safeguards and Medical Aspects of Sports. AMCIA's mission statement was to establish recommendations for appropriate medical coverage to provide student athletes with the best possible health care without discrimination. The task force developed a rating system using injury rates, potential for catastrophic injury, and treatment/rehabilitation demands for both time loss and non-time loss injuries per sport. Other factors (prolonged season exposure, squad

size, travel requirements, administrative duties) were also used to determine health care loads and staffing needs. The task force reviewed literature from past injury rate data, research, legal cases, and injury tracking data to form the basis for the recommendations set forth. The basis of this equation made by AMCIA was health care units (HCU). Each sport was assigned a base HCU between the range of 1-4. These units can be adjusted by individual institutions depending on certain criteria. A full time ATC should have no more than 12 HCU's. The HCU utilized the addition of injury rates, catastrophic injury risk, and treatment demands per injury, divided by three to determine the base HCU for each sport.

Base HCU's were used in the current study to determine a high injury risk sport (3.0 or greater) and a low injury risk sport (2.9 or lower). This provided the current survey a way of determining if significant perceptions of athletic training duties exist between sports that have different specific demands on the ATC and sports medicine team.

### *Summary*

As interpreted by the literature, perceptions of athletic trainers can be validated by use of detailed methods. Determining perceptions of coaches on athletic training will help to understand the level of coaches' understanding and might aid in better communication between sports medicine personnel (Cutrufello, 1998). Studies have been conducted to determine coaches' knowledge of ATC's duties, a lack of research still exists in examining coaches' perceptions. This indicates that an assessment of perceptions may aid in explaining why coaches perceive ATC's in a certain manner, and

may enhance the athlete's optimal healthcare. This current study was also available to determine if a difference in perceptions exists between high injury risk and low injury risk sports. The purpose of the study was to identify the perception of NCAA Division I head coaches from high and low injury risk sports toward on the job task importance of the athletic trainer. Results from this study were compiled into a journal article for submission to the *Journal of Athletic Training* (see Appendix D).

## Section C

### PROCEDURES OF MEASUREMENT

The purpose of the study was to identify the perception of NCAA Division I head coaches of high and low injury risk sports toward on the job task importance of the athletic trainer. This section was presented in seven segments: 1) subjects, 2) instruments, 3) procedures, 4) data analysis, 5) pilot study, 6) summary, and 7) project completion.

#### *Subjects*

Four NCAA Division I head coaches were selectively chosen (2-high injury risk sports and 2-low injury risk sports) from a systematic sample of 40 chosen schools within NCAA Division I. The number of schools was chosen to reflect a wide geographic region providing for a variety of high and low injury risk sports. Selection of schools included choosing every third school in the 2000-2001 National Directory of Intercollegiate Athletics (NACDA, 2000). Schools that did not have enough high or low injury risk sports to be included in the study (2 of each), was rejected and the next school on the list was chosen. Selection of sports was conducted in order to include head coaches from two high injury risk sports as well as two low injury risk sports per institution. Selection of sports was made to include a wide variety of high and low injury risk sports. One of the purposes of the study was to determine if there was a difference among perceptions of head coaches from high and low injury risk sports.

### *Instruments*

The purpose of this study was to determine perceptions of NCAA Division I head coaches' of high and low profile sports toward on the job task importance of the athletic trainer based on the NATA delineated six domains (see Appendix A) using a 5-point Likert scale (NATABOC, 1999). The current study questionnaire was designed for the head coach to rate their perceptions towards ATC's delineated duties from 5, very essential to 1, not essential at all. A 5-point Likert scale was determined useful in measuring complex questions of patient's satisfaction (Fitzpatrick, 1991). The Coaches' Perceptions of Athletic Training Survey (CPAT) was used as an assessment tool to assess perceptions of ATC's, much like Unruh (1998) and Cutrufello (1998). The questionnaire used in the study was modified from the RDS by adding a demographic section specific for coaches and an overall rating at the end of each of the six domains. The CPAT was divided into two sections: 1) Athletic Training Evaluation (see Appendix E) and 2) Demographics (see Appendix F).

Questions included in section 1 of the survey included tasks in all six domains of athletic training (NATABOC, 1999). Fitzpatrick (May 1991) states that "the more clearly focused each question, the easier it was to compare satisfaction with the different elements of care" (p. 1130). The questions provided in section 1 were identical to each task under each domain of the Role Delineation Study for a total of 43 questions (NATABOC, 1999). Each question requested the coach to answer what he/she feels are essential on the job tasks provided by the ATC in the 5-point Likert scale format of 5, very essential to 1, not essential at all (Fitzpatrick, May 1991). Appendix E outlines the

complete Athletic Training Evaluation section of the survey. The demographic portion (section 2) of the survey entailed seven questions including: head coaches job title, sport, age, gender, years of experience as a head coach at NCAA Division I schools, years of experience at the present university, total number of years coaching with a full time ATC, number of years spent with current team's certified athletic trainer, and team gender (see Appendix F). Fitzpatrick (April 1991) states that items which are significant in the survey are background variables such as social and demographic variables. These variables such as: sex, age, marital status, and education can exert strong influences on levels of satisfaction.

Demographics of the surveyed subjects were to be determined solely by those coaches who return the survey (see Appendix F). The Athletic Training Evaluation contained 43 questions in 5-point Likert scale format. The Demographics section contains 16 short answer and yes or no questions. A pilot study consisted of a panel of four ATC's and one physical therapist was used to determine face validity of the CPAT.

### *Pilot Study*

A pilot study was conducted within the Pacific 10 Conference (PAC 10), with four coaches selectively chosen from each school. Appendix G identifies a list of schools surveyed in the pilot study. Each section was reviewed by a panel of four ATC's and one physical therapist to determine face validity. The pilot study assessed the validity and clarity of the instructions and questions used in the survey. Information from the pilot study was used to modify the CPAT to increase clarity of the survey instrument.

### *Procedures*

One hundred and sixty (N=160) Head Coaches from NCAA Division I colleges and universities were mailed the Coaches' Perceptions of Athletic Training Survey (CPAT) (see Appendix E). Four selected head coaches at each identified university were selectively chosen to receive a questionnaire. Two of the head coaches selected from each school coached a low injury risk sport and two a high injury risk sport. The mailed survey packet included a letter (see Appendix H) introducing the researcher the intent of the study, including a clause indicating assured, directions for filling out the questionnaire including a clause that returning the survey implies consent, a self addressed envelope for returning the questionnaire and the questionnaire itself. Return envelopes were coded to determine respondents for future mailings. Research indicates that the use of a mail questionnaire allows the subjects to answer more freely, honestly and accurately (Dillman, 1978). Fitzpatrick (1991) also notes that the advantages of a self completed questionnaire include (1) the standardization of items, (2) anonymity, (3) low cost of data gathering, (4) less need for trained staff, and (5) the questionnaire contains no interviewer bias. The head coach had three weeks to complete and return the study. After three weeks the head coach was mailed a reminder postcard to complete and return the survey (See Appendix I). After five weeks subjects who did not return the survey received an additional questionnaire packet (Dillman, 1978).

### *Data Analysis*

Data was compiled and analyzed using SPSS software. Descriptive statistics (mean, mode and standard deviation) were used to assess 5-point Likert scale answers to



questions on domain importance for a total of 43 questions. Demographic information was described through descriptive statistics (mean, median and mode) (Thomas & Nelson, 1996). High and low injury risk sports were compared by a T-test to determine if there is a difference in perceptions.

#### *Project Completion*

Results from this project were compiled into a journal article for submission to the *Journal of Athletic Training* according to author's notes (see Appendix D).

#### *Summary*

The purpose of this project was to determine the perception of NCAA Division I head coaches from high and low injury risk sports toward athletic training on the job tasks. Each participant was to complete a total of 43 questions, pertaining to all tasks delineated by the NATA Role Delineation Study under the six domains of athletic training (NATABOC, 1999). Head coach perceptions were assessed by completing questions in the 5-point Likert scale format. Descriptive statistics (overall mean, mode and standard deviation) was taken of each Likert scale question in addition to the demographics section of the survey (NATABOC, 1999). High and low injury risk sports were compared to determine if a difference in perceptions exists.

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Appendix A

SIX DELINEATED DOMAINS OF ATHLETIC TRAINING

### **III. CLASSIFICATION SYSTEM OF DOMAINS, TASKS, KNOWLEDGE AND SKILLS**

This section of the report contains the domains, tasks and knowledge and skill statements as delineated by the Role Delineation Panel. The domains and tasks developed by the panel were compiled in a survey and presented to the survey participants for feedback. Respondents rated the tasks according to their importance, criticality and frequency using the five-point scales defined later in this report.

#### **I. PREVENTION**

The domain of Prevention is unique and specific to the field of athletic training. Certified athletic trainers are allied health professionals who assist athletes in maintaining a high level of performance while minimizing the risk of injury and/or illness. To ensure quality of care, athletic trainers rely on a broad foundation of pathophysiological and medical knowledge, and effective communication skills. They also utilize their ability to recognize the risks associated with injury and implement a proper plan of action to minimize any adverse effects.

Certified athletic trainers must understand the demands of sport as it affects anatomical, physiological and biomechanical structure and function. The ability to identify potential safety hazards and prepare the athlete – both physically and emotionally for activity – decreases the risk of injuries and/or illnesses.

Certified athletic trainers must be able to design and implement physical conditioning programs, perform preparticipation screenings and continuously monitor changes in the environment. The knowledge and skill needed to fit protective equipment as well as properly design and construct prophylactic products is also important. In addition, the certified athletic trainer must be able to promote sound nutritional practices as well as educate athletes in the area of drugs in sports and their effects on their athlete and performance.

#### **A. Educate the appropriate individual(s) about risks associated with participation using effective communication techniques to minimize risk of injury.**

Knowledge of:

1. Appropriate individuals: administrators, parents, coaches, participants, members of the health care team
2. Common risks: musculoskeletal, neurological, respiratory, medical
3. Catastrophic risk: cardiorespiratory, neurological, thermoregulatory, nutritional disorders, substance abuse, blood-borne pathogens
4. Mechanisms of common and catastrophic injury
5. Preventive measures: safety rules, proper techniques, nutritional guidelines
6. Effective communication techniques: multimedia videos, pamphlets, posters, models, handouts, oral communication

Skill in:

1. Communicating effectively
2. Identifying appropriate resources
3. Identifying risks

**B. Review preparticipation screening information by applying accepted guidelines to minimize the risk of injury and illness.**

Knowledge of:

1. The pre-participation evaluation process
2. Established regulations, institutional policy, state/national governing bodies, state law/regulations
3. Established guidelines for recommended participation: AAP, PPE monograph, NCAA Sports Medicine Handbook

Skill in:

1. Identifying conditions that may limit or compromise participation
2. Collecting and appropriately applying preparticipation screening information

**C. Instruct the appropriate individual(s) about required standard protective equipment to minimize risk of injury.**

Knowledge of:

1. Appropriate individuals
2. Legal ramifications of making equipment modifications
3. Rules pertaining to required equipment
4. Manufacturers' guidelines regarding selection, fit, inspection and maintenance of equipment
5. Established standards for reconditioning of protective equipment: NOCSAE, ASTM
6. Intended purpose, limitations and capabilities of protective equipment

Skill in:

1. Fitting standardized protective equipment
2. Educating individuals on selection of protective equipment
3. Interpreting rules regarding standard equipment



**D. Apply appropriate prophylactic/protective measures using commercial products or custom-made devices to minimize risk of injury.**

Knowledge of:

1. Commercially available protective products
2. Materials and methods for fabricating custom-made protective devices
3. Effective use of prophylactic/protective measures
4. Absorption, dissipation and transmission of energy
5. Mechanisms of injury
6. Legal risks involved in the construction of custom-made protective devices

Skill in:

1. Fabricating and fitting custom-made devices
2. Selecting and applying commercial devices
3. Identifying injuries/conditions which warrant application of custom-/commercial-made devices

**E. Identify safety hazards in activity areas and equipment by following established procedures to make appropriate recommendations and minimize risk of injury.**

Knowledge of:

1. Facilities/equipment required for activity: rules governing play, established standards and practices
2. Hazards common to activity area: surface irregularities, obstructions, inadequate offsets, moisture and other foreign objects, inadequate lighting, broken equipment, inadequate ingress and egress, access to emergency communication
3. Policies and procedures for addressing facility hazards
4. Corrective measures for facility hazards

Skill in:

1. Conducting inspection for hazards
2. Recognizing hazards
3. Recommending appropriate methods for addressing hazards

**F. Monitor participants and environmental conditions following accepted guidelines to make recommendations regarding safe participation.**

Knowledge of:

1. Conditions of participants which predispose them to environmentally caused illness: prior heat illness, sickle cell trait, asthma, recent viral infection, use of medication, obesity, dehydration

2. Environmental conditions which create risk: heat, humidity, cold, altitude, pollution, weather extremes, insect swarms, infectious pathogens
3. Policies and procedures for removing participants from environmental risk situations: heat index, lightning, activity scheduling
4. Monitoring techniques: weight charts, fluid intake, body composition
5. Established standards regarding environmental risks: lightning, heat index, governing body rules/regulations
6. Methods for reducing risk from environmental conditions: activity scheduling, clothing selection, fluid replacement

Skill in:

1. Recognizing characteristics in participants which would predispose them to environmental risk
2. Using available tools to gather/interpret information regarding environmental data
3. Recognizing environmental risks
4. Facilitating appropriate action in response to environmental risks

**G. Facilitate physical conditioning by designing and implementing appropriate programs to minimize risk of injury.**

Knowledge of:

1. Human physiology: adaptation to exercise
2. Components of a physical conditioning program
3. Various conditioning seasons: pre, post, in, off
4. Current strength and conditioning techniques

Skill in:

1. Addressing all components of a comprehensive conditioning program: strength, flexibility, endurance, sport requirements, individual needs
2. Educating appropriate individuals in the effective application of design conditioning programs: participant, coach, parent
3. Assessing proficiency in participation of designed conditioning programs
4. Instructing in the usage of appropriate conditioning equipment: bikes, weight machines, treadmills, etc.
5. Correcting or modifying inappropriate, unsafe, or dangerous activities undertaken in conjunction with physical conditioning programs

**H. Maintain clinical and treatment areas by complying with safety and sanitation standards to minimize risk of injury or illness.**

Knowledge of:

1. Situations/conditions which pose risk
2. Established standards/regulations: local, state, national, federal, institutional
3. Manufacturers' guidelines for maintaining therapeutic equipment

Skill in:

1. Operating or applying therapeutic modalities and rehabilitation equipment
2. Recognizing noncompliance with safety and sanitation standards
3. Recognizing malfunction or disrepair of therapeutic modalities, rehabilitation equipment or furnishings in clinical and treatment areas
4. Complying with manufacturer's suggestions for maintenance of therapeutic equipment
5. Maintaining a safe and sanitary environment in compliance with established standards: OSHA, Universal Precautions, local health department, institutional policy, etc.

**I. Promote sound nutritional practices by encouraging adherence to accepted guidelines to minimize risk of injury and illness.**

Knowledge of:

1. Accepted guidelines for sound nutritional practices
2. Professional resources for nutritional information
3. Nutritional disorders
4. Predisposing factors for nutritional disorders

Skill in:

1. Recognizing signs and symptoms of eating disorders
2. Educating appropriate individuals on sound nutritional practices
3. Accessing information concerning accepted guidelines for nutritional practices
4. Communicating with appropriate professionals regarding referral and treatment for individuals with nutritional disorders
5. Addressing the issue of special nutritional needs in regard to competition or activity: pre-/post-game meals, nutritional supplements, etc.

**II. RECOGNITION, EVALUATION AND ASSESSMENT**

Recognition, evaluation and assessment are skills critical to the role of the certified athletic trainer. Understanding the pathomechanics and predisposing factors of an injury assists the certified

athletic trainer in their assessment of the injury, illness or condition. In the absence of a physician, the certified athletic trainer's clinical impression is critical to the proper management of the injury, illness or condition.

Specific musculoskeletal components that are important in a thorough assessment include a history of the injury and the individual visual inspection of the injured body part and associated structures, and palpation of bony landmarks and soft tissue structures. In addition, special tests should be utilized to systematically assess the pathology and extent of the injury or condition. These special tests should include, but not be limited to: a) joint range-of-motion; b) manual muscle tests; c) ligamentous stress tests; d) neurological testing; e) fracture assessment; and f) functional capacity assessment. To formulate a clinical impression regarding the athlete's injury, illness or condition, the certified athletic trainer should then use information gathered during the assessment. If the injury requires further definitive care by a physician or other allied health professional, the certified athletic trainer should be able to refer the individual to an appropriate health care professional.

The certified athletic trainer plays an important role not only as a facilitator of advanced health care but also as a health educator of the student-athlete. For this and other reasons, an extensive knowledge of anatomy and medical terminology is crucial to the communication and interaction with other members of the health care team.

**A. Obtain a history through observation, interview, and/or review of relevant records to assess the pathology and extent of the injury, illness or condition.**

Knowledge of:

1. Pathomechanics of injury
2. Relationship between predisposing factors and injuries, illnesses and conditions
3. The body's immediate and delayed physiological response to injuries, illnesses and conditions
4. Signs and symptoms of injuries, illnesses and conditions
5. The consequences of inappropriate nutritional practices
6. Communication techniques in order to elicit information
7. Transmission of infectious agents
8. Standard medical nomenclature and terminology
9. Available medical records that are a potential source of further information
10. Principles and techniques of sports activities
11. Pathology of illnesses and conditions

Skill in:

1. Identifying the extent and severity of injuries, illnesses and conditions
2. Relating signs and symptoms to specific injuries, illnesses and conditions
3. Obtaining and recording information relating to injuries, illnesses and conditions
4. Relating predisposing factors to specific injuries, illnesses and conditions
5. Identifying anatomical structures involved in injuries, illnesses and conditions

**B. Inspect the involved area(s) visually to assess the pathology and extent of the injury, illness or condition.**

Knowledge of:

1. Bony landmarks and soft tissues
2. Signs and symptoms of injuries, illnesses and conditions
3. Response to injuries, illnesses and conditions
4. Principles of visual inspection
5. Normal and abnormal structural relationships as they relate to the pathomechanics of injuries and conditions
6. Medical terminology and standard nomenclature of injuries, illnesses and conditions

Skill in:

1. Removing equipment and clothing in order to evaluate the involved area
2. Assessing the body's immediate and delayed physiological responses to injuries, illnesses and conditions
3. Identifying abnormalities of bony landmarks and soft tissue conformations of specific injuries, illnesses and conditions
4. Recognizing the relationships and severity of pathological signs of injuries, illnesses and conditions
5. Assessing pre-existing structural abnormalities and relating them to pathomechanics of injuries, illnesses and conditions

**C. Palpate the involved area(s) using standard techniques to assess the pathology and extent of the injury, illness or condition.**

Knowledge of:

1. Musculoskeletal system with emphasis on bony landmarks and soft tissue structures
2. Body's immediate and delayed physiological response to injuries, illnesses and conditions
3. Principles of palpation

Skill in:

1. Locating and palpating bony landmarks, articulations, ligamentous structures, musculotendinous units and other soft tissues
2. Recognizing severity of pathological signs and symptoms of injuries, illnesses and conditions
3. Assessing body's immediate and delayed physiological response to injuries, illnesses and conditions
4. Palpating pertinent areas of the body in order to assess integrity of human anatomical/physiological systems

**D. Perform specific tests systematically to assess the pathology and extent of the injury, illness or condition.**

Knowledge of:

1. Pathomechanics of injuries, illnesses and conditions
2. The body's immediate and delayed physiological responses to injuries, illnesses and conditions
3. Specific tests for range of motion, muscular strength or weakness, structural integrity and functional capacity
4. Signs and symptoms of systemic requirements and failure during exercise
5. Principles and techniques of sensory testing, motor testing, ligamentous testing, neurological testing, manual fracture testing and functional testing
6. Signs and symptoms of injuries, illnesses and conditions
7. Medical terminology and standard nomenclature

Skill in:

1. Assessing muscular strength by use of manual and/or mechanical muscle tests
2. Assessing joint range of motion using test and measurement techniques
3. Identifying the location and function of supportive ligamentous and musculotendinous structures
4. Performing special tests
5. Assessing the information gained from tests
6. Assessing neurological, sensory and motor function
7. Interpreting neurological and motor functional tests
8. Identifying the signs and symptoms of the body's systemic systems
9. Identifying location, type, function and action of each joint

**E. Formulate a clinical impression by interpreting the signs and symptoms of the injury, illness or condition to determine the appropriate course of action.**

Knowledge of:

1. Signs and symptoms
2. Indications and contraindications for the use of prescription and nonprescription medication in the immediate care of injuries, illnesses and conditions
3. Relationship between predisposing factors and injuries, illnesses and conditions
4. Pathomechanics of athletic injury
5. Psychosocial implications of injury

Skill in:

1. Implementing appropriate treatment or referral to other medical personnel based on the body's response to pathological anomaly
2. Interpreting the pertinent information from an assessment
3. Synthesizing applicable information from an assessment

- F. Educate the appropriate individual(s) about the assessment by communicating information about the injury, illness or condition to encourage compliance with recommended care.**

Knowledge of:

1. Communication skills and techniques
2. Patient confidentiality
3. Medical terminology and nomenclature
4. Commonly accepted practices regarding the care and treatment of illnesses, injuries and conditions

Skill in:

1. Using both verbal and written forms of communication
2. Interpreting medical terminology for the appropriate individuals

- G. Inform members of the health care team about your assessment through direct communication to facilitate appropriate care.**

Knowledge of:

1. Patient confidentiality
2. Medical terminology and nomenclature
3. Communication skills and techniques
4. Roles and scope of practice of various health care professionals
5. Commonly accepted practices regarding the care and treatment of illnesses, injuries and conditions

Skill in:

1. Collaborating in verbal and written form with health care professionals
2. Utilizing medical terminology and nomenclature

### **III. IMMEDIATE CARE**

The certified athletic trainer must have competence in the execution of standard measures of care including but not limited to cardiopulmonary resuscitation, basic and advanced first aid for life-threatening and other emergency conditions. A working knowledge of standard athletic equipment removal, injured athlete immobilization and proper transportation must also be included within that competence. At the time and site of the injury/illness, the certified athletic trainer must know the indications and contraindications for return to participation with or without the recommendation of

a licensed physician. Knowledge and initial of care for medical and musculoskeletal conditions to stabilize and/or prevent such conditions is within the competency realm of the certified athletic trainer.

Apart from traumatic injury/illness immediate care, the certified athletic trainer must also be able to facilitate referral and guidance for psychosocial crises by implementing established intervention strategies and subsequent medical consultations.

Integral to their organizational responsibilities for immediate care of athletes, the certified athletic trainer must be able to devise and implement emergency action plans within his/her setting, and establish a chain of command of who will be in charge at the time of an emergency/injury situation. Knowledge and implementation of federal and state occupational safety and health guidelines including infectious waste management and disposal must be part of that plan. The certified athletic trainer also must be available to educate staff, coaches, EMS personnel and the community in standard immediate care procedures relative to athletic injury; and keep them current as to trends and changes in said procedures.

**A. Initiate and/or execute techniques to mitigate life-threatening and other emergency conditions through the use of standard emergency care procedures.**

Knowledge of:

1. Human anatomy: normal and compromised structures and functions
2. Human physiology: normal and compromised functions
3. Emergency action plans
4. Federal and state occupational safety and health guidelines
5. Common emergency medical situations and proper management techniques (e.g., shock, diabetic coma, heat stroke, heart attack)
6. Standard athletic equipment and devices used for equipment removal
7. Immobilization techniques and equipment
8. Conditions requiring intervention outside the scope of athletic training
9. Use of common emergency equipment (e.g., blood pressure cuff, stethoscope, spine board)

Skill in:

1. Performing cardiopulmonary techniques and skills
2. Demonstrating compliance with federal and state occupational, safety and health guidelines
3. Applying wound care techniques
4. Demonstrating proper removal of standard athletic equipment and devices used for equipment removal
5. Demonstrating use of common emergency equipment (e.g., blood pressure cuff, stethoscope, otoscope)
6. Demonstrating proper immobilization and transfer techniques
7. Demonstrating management of common medical emergency situations
8. Referring to appropriate medical and allied health personnel



**B. Initiate care for medical conditions to stabilize and/or prevent exacerbation of the condition through the use of standard techniques.**

Knowledge of:

1. Human anatomy: normal and compromised structures and functions
2. Human physiology: normal and compromised functions
3. Medical conditions requiring intervention outside the scope of athletic training
4. Stabilization of current physiological state
5. Indications and contraindications for participation
6. Appropriate pharmacological or therapeutic modality usage
7. Standard medical equipment (e.g., blood pressure cuff, stethoscope, otoscope)

Skill in:

1. Obtaining vital signs
2. Obtaining sensory feedback of signs and symptoms
3. Demonstrating use of common emergency equipment
4. Demonstrating use of appropriate pharmacological or therapeutic modalities

**C. Initiate care for musculoskeletal conditions to stabilize and/or prevent exacerbation of the condition through the use of standard techniques.**

Knowledge of:

1. Human anatomy: the musculoskeletal system
2. Musculoskeletal conditions requiring intervention outside the scope of athletic training
3. Immobilization techniques and equipment
4. Protective and prophylactic equipment and supplies
5. Indications or contraindications for participation
6. Appropriate pharmacological and therapeutic modality usage
7. Human physiology: musculoskeletal system
8. Common emergency equipment (e.g., blood pressure cuff, stethoscope, spine board, vacuum splints)

Skill in:

1. Selecting and applying appropriate immobilization equipment
2. Selecting and applying appropriate protective and prophylactic equipment and supplies
3. Administering appropriate pharmacology and modalities
4. Referring to appropriate medical personnel
5. Applying proper auditory, verbal and nonverbal communication skills
6. Demonstrating use of common emergency equipment (e.g., blood pressure cuff, stethoscope, spine board, vacuum splints)

**D. Facilitate referral or guidance for psychosocial crises by implementing established intervention strategies to match services to the need.**

Knowledge of:

1. Psychology, guidance, theory and application
2. Common psychosocial conditions
3. Appropriate intervention techniques
4. Conflict resolution strategies
5. Resources for professional referral
6. Indications or contraindications for participation

Skill in:

1. Applying appropriate intervention techniques
2. Applying auditory, verbal and nonverbal communication skills
3. Applying conflict resolution strategies
4. Referring to appropriate medical personnel

**E. Educate appropriate individuals in standard immediate care procedures using formal and informal methods to facilitate immediate care.**

Knowledge of:

1. Current techniques and standards of practice
2. Methods and materials for communication and presentation

Skill in:

1. Demonstrating technical competence using current techniques and standards of practice
2. Applying methods and materials for communication and presentation
3. Communicating with local EMS, allied health and medical personnel
4. Educating athletes, parents and coaches

**IV. TREATMENT, REHABILITATION, AND RECONDITIONING**

The certified athletic trainer has the knowledge and skills necessary to assess the status of injuries, illnesses or conditions to determine appropriate treatment, rehabilitation and/or reconditioning with consideration for psychosocial, community, family and health care support system influences. This professional has the knowledge and skills necessary to facilitate recovery, function and/or performance by administering therapeutic exercise and modalities for the treatment of general injuries, illnesses and/or conditions. Following treatment plan implementation the certified athletic trainer can determine the need for treatment modification, continuation or discontinuation. The didactic and practical background of the certified athletic trainer fosters a unique qualification

for applying functional criteria to evaluate readiness for return to partial or full activities. This background also helps to educate, guide and communicate to others about the treatment, rehabilitation and reconditioning of general injuries, illnesses and/or conditions.

**A. Administer therapeutic exercise using standard techniques and procedures to facilitate recovery, function and/or performance.**

Knowledge of:

1. The structure, growth, development and regeneration of tissue
2. Principles of adaptation and overload of tissues
3. Principles of adaptation of systems
4. Principles of therapeutic exercise (e.g., isometric, isotonic, isokinetic, work, power, endurance, etc.)
5. Neurology relating to treatments, rehabilitation and reconditioning
6. The inflammatory process relating to treatment, rehabilitation and reconditioning
7. Proprioception and kinesthesia relating to treatment, rehabilitation and reconditioning
8. Functional progressions relating to treatment, rehabilitation and reconditioning
9. Available equipment and tools relating to treatment, rehabilitation and reconditioning
10. Adaptations of the cardiovascular and muscular systems relating to treatment, rehabilitation and reconditioning
11. Indications and contraindications relating to treatment, rehabilitation and reconditioning
12. Drug therapy relating to treatment, rehabilitation and reconditioning

Skill in:

1. Applying exercise prescription principles in development and implementation of treatment, rehabilitation and reconditioning (e.g., isometric, isotonic, isokinetic, etc.)

**B. Administer therapeutic modalities using standard techniques and procedures to facilitate recovery, function and/or performance.**

Knowledge of:

1. Indications/contraindications for therapeutic modalities
2. Principles of electromagnetic and acoustical energy
3. The structure, growth, development and regeneration of tissue
4. The inflammatory process relating to therapeutic modalities
5. Available therapeutic modalities relating to treatment, rehabilitation and reconditioning
6. The physiological response to therapeutic modalities
7. Physiopharmacology relating to therapeutic modalities
8. The physiological response to pain relating to therapeutic modalities

Skill in:

1. Applying thermal, electrical, mechanical and acoustical modalities
2. Applying manual therapy techniques

**C. Administer treatment for general illnesses and/or conditions using standard techniques and procedures to facilitate recovery, function and/or performance.**

Knowledge of:

1. Pathophysiology associated with systemic illness, communicable disease, bacterial infections, viral infections, and fungal and parasitic infections
2. The structure, growth, development and regeneration of tissue
3. Physiopharmacology relating to the treatment of injuries, illnesses and conditions
4. Related medical and health care professionals involved in the treatment of injuries, illnesses and conditions

Skill in:

1. Applying topical skin care products
2. Applying universal precautions for blood-borne pathogens
3. Applying topical wound care products
4. Referring to appropriate health care providers
5. Recognizing the status of systemic illnesses
6. Recognizing the status of bacterial, viral, fungal and parasitic infections

**D. Reassess the status of the injury, illness, or condition using standard techniques to determine appropriate treatment, rehabilitation and/or reconditioning and to evaluate readiness to return to a desired level of activity.**

Knowledge of:

1. Standard assessment procedures and techniques
2. Techniques and procedures to modify, continue or discontinue treatment plans
3. Functional criteria for return to activity

Skill in:

1. Interpreting reassessment information necessary to modify, continue or discontinue treatment plans
2. Applying functional criteria for return to activity

- E. Educate the appropriate individual(s) in the treatment, rehabilitation and reconditioning of injuries, illnesses and/or conditions using applicable methods and materials to facilitate recovery, function and/or performance.**

Knowledge of:

1. The available psychosocial, community, family and health care support systems relating to treatment, rehabilitation and reconditioning
2. Applicable methods and materials for education

Skill in:

1. Identifying appropriate individuals to educate
2. Communicating appropriate information
3. Utilizing standard educational methodology

- F. Provide guidance for the appropriate individual(s) in the treatment, rehabilitation and reconditioning of injuries, illnesses and/or conditions through communication to facilitate recovery, function and/or performance.**

Knowledge of:

1. The psychosocial aspects of rehabilitation
2. Referral sources

Skill in:

1. Identifying appropriate individuals for guidance
2. Utilizing appropriate psychosocial techniques (i.e., goal setting, social support, etc.) in rehabilitation
3. Referring to appropriate health care professionals
4. Utilizing effective communication skills
5. Providing guidance for the individual during the treatment, rehabilitation and reconditioning process

## **V. ORGANIZATION AND ADMINISTRATION**

Perhaps no other performance domain exemplifies the unique role of a certified athletic trainer more than Organization and Administration. The scope of health care service to athletes is very broad and involves a large body of medical personnel, institutions and regulating bodies. That responsibility has been delegated to the certified athletic trainer – and it is no small coincidence. Careful inspection of the tasks performed by certified athletic trainers, as described in the other

performance domains, will attest to the fact that, whatever the source, all service rendered to or on behalf of the individual athlete ultimately converges with the certified athletic trainer.

Fundamental to the success of the Organization and Administration of any program, however, is the appreciation of the interdependence of its parts and the awareness that these parts exist under constantly changing conditions. For the certified athletic trainer, the interdependence is readily appreciated due to the convergent nature of his/her service. That these services will change with time may not be so apparent. But they can be addressed with the realization that the individual tasks – the ability to plan, to write policies and procedures, to comply with standards, to manage finances and personnel and to maintain records – are unlikely to change with time. Likewise, the purpose of each task is unlikely to change. What is certain to change, however, are the available resources (both internal and external), the host of guidelines, the safety and sanitation standards, the institutional and governing bodies' directives, and the personnel involved. So, too, may the all-encompassing definition of "standard of care" change. It is, therefore, the certified athletic trainer's responsibility to stay informed about any changes, to document them and to take appropriate action in response to them.

**A. Establish a plan of action using available resources to provide routine and emergency health care services for individuals, athletic activities and events.**

Knowledge of:

1. Organizational preparticipation screening policies and procedures
2. Institutional guidelines for referral of individuals to health care services
3. Local and out-of-area emergency medical services
4. Local third party reimbursement procedures
5. Institutional and local hierarchy for delivery of health care services
6. Staff emergency preparedness
7. Environmental hazards
8. Institutional policies regarding substance abuse

Skill in:

1. Organizing resources and personnel
2. Interacting with appropriate administrative leadership
3. Interpreting regulatory policies

**B. Write policies and procedures for individuals by following established guidelines to promote safe participation, timely care and legal compliance.**

Knowledge of:

1. Institutional review boards, policies and procedures regarding informed consent guidelines
2. Guidelines and regulations for removal from environmental hazards
3. Institutional, governmental, and appropriate organizational guidelines for safety, health care delivery and legal compliance

4. Risk management policies and procedures
5. Institutional and governmental regulations regarding drug usage, substance abuse and mental illness
6. Prescreening participation guidelines

Skill in:

1. Applying existing guidelines
2. Interacting with appropriate individuals
3. Completing the documentation process
4. Organizing policies and procedures in a logical fashion
5. Obtaining appropriate policies, guidelines, and regulations

**C. Write policies and procedures for facilities, treatment and activity areas by referring to existing guidelines to promote safety and legal compliance.**

Knowledge of:

1. Institutional and governmental guidelines for maintenance of facilities and equipment
2. Manufacturer's operational guidelines
3. Appropriate inspection procedures and documentation
4. Safe playing and treatment environments
5. OSHA guidelines

Skill in:

1. Complying with equipment manufacturer's operational regulations/guidelines
2. Complying with institutional and governmental policies and procedures for maintenance of facilities and equipment
3. Applying OSHA standards
4. Recognizing potential safety hazards
5. Assuring compliance by involved staff

**D. Comply with safety and sanitation standards for treatment and activity areas by establishing policies and procedures to meet the current standard of care.**

Knowledge of:

1. OSHA guidelines
2. Institutional/local/state/federal safety and sanitation regulations
3. Appropriate national organizations' and associations' guidelines for safety
4. Americans with Disabilities Act regulations
5. Equipment manufacturers' operational guidelines
6. Institutional drug testing and substance abuse policies

**E. Manage resources by constructing and monitoring an annual budget and time management plan to provide for appropriate health care services.**

Knowledge of:

1. Human resource/personnel services available (or institutional human resources services)
2. Institutional budgeting and purchasing process
3. Institutional and federal employment regulations (BEOC)
4. Appropriate patient flow
5. Staff scheduling and allocating resources
6. Computer database spreadsheet applications

Skill in:

1. Obtaining resource materials
2. Using computer software applications (word processing, database, spreadsheet)
3. Organizing staff

**F. Maintain records using an appropriate system to document the services rendered and provide for continuity of care.**

Knowledge of:

1. Institutional informed consent policies and procedures
2. Documentation protocols
3. Institutional policies and procedures for documentation and record keeping
4. Accepted medical terminology and abbreviations (CPT, HCFA coding)
5. Institutional/local/state/federal regulations regarding medical records (e.g., confidentiality)

Skill in:

1. Creating and completing the documentation process of medical records (e.g., SOAP, insurance, injury records, etc.)
2. Dictating medical records
3. Using computer applications for recordkeeping (sports injury surveillance, daily injury report system)
4. Applying knowledge of medical terminology and abbreviations



## **VI. PROFESSIONAL DEVELOPMENT AND RESPONSIBILITY**

This domain ensures that the entry-level certified athletic trainer has the knowledge and skills that are necessary to maintain competence in the latest educational and regulatory issues in the profession. Compliance with these issues includes:

- Following the NATABOC Standards of Professional Practice and Discipline;
- Remaining current with the latest research related to the profession and the educational and credentialing standards set forth by NATABOC;
- Having a historical and current knowledge on the scope of athletic training and health care issues related to the profession and being able to communicate those issues to the public; and
- Adhering to statutory, regulatory and case law related to the practice of athletic training.

### **A. Demonstrate appropriate professional conduct by complying with applicable standards to provide quality athletic training services.**

Knowledge of:

1. NATABOC Standards of Professional Practice and Discipline
2. Ethical codes of appropriate professional organizations

Skill in:

1. Following ethical standards
2. Recognizing confidential information

### **B. Maintain competence through continuing education to provide quality athletic training services.**

Knowledge of:

1. NATABOC Continuing Education Units (CEU) Standards
2. NATABOC credentialing requirements
3. Resources for continuing education
4. Current and pertinent research in physical activity, exercise and/or sports
5. Current and pertinent research methodologies

Skill in:

1. Obtaining necessary CEUs within the reporting term to maintain certification
2. Using computer hardware and applicable software
3. Interpreting, evaluating and applying relevant research data, literature and/or other forms of information

**C. Educate the public about the role and standards of practice of the athletic trainer through informal and formal means to improve the public's ability to make informed decisions about the use of athletic training services.**

Knowledge of:

1. History and the scope of practice of the athletic training profession
2. Methods for disseminating information
3. Current health care needs relevant to athletic training
4. Related health care professions

Skill in:

1. Communicating information to appropriate individuals through various forms
2. Assessing the athletic training needs of the community

**D. Adhere to statutory, regulatory and case law relating to the practice of athletic training by maintaining an understanding of these requirements to contribute to the safety and welfare of the public and the profession.**

Knowledge of:

1. State statutes and regulations which directly govern athletic training
2. State statutes and regulations governing other professions which impact the practice of athletic training (e.g., medicine, physical therapy, nursing, pharmacology)
3. State criminal laws which apply to the conduct of the certified athletic trainer (e.g., sexual misconduct, misconduct with minors, controlled substances)
4. Federal statutes and regulations which apply to the practice of athletic training (e.g., OSHA, DEA, Title IX, Civil Rights Act)
5. Federal and state court decisions which apply to the legal duties and responsibilities of the certified athletic trainer
6. Elements of liability for negligence
7. Criteria for determining the legal standard of care in athletic training (e.g., state statutes and regulations, professional standards and guidelines, publications, customs, practices and societal expectations)

Skill in:

1. Researching state and federal statutes and regulations
2. Researching court decisions
3. Researching professional standards and guidelines
4. Researching literature relating to particular practice methods and procedures
5. Ascertaining professional customs and practices
6. Determining societal expectations relating to the practice of athletic training

Appendix B

TABLE OF UNIVERSAL COMPETENCIES

Appendix 1. Table of Universal Competencies

Universal Competencies	Performance Domains				Professional Development and Responsibility
	Prevention of Athletic Injuries	Recognition, Evaluation, and Immediate Care of Athletic Injuries	Rehabilitation and Reconditioning of Athletic Injuries	Health Care Administration	
<b>Domain-Specific Content</b>	<b>Knowledge and skills particular to each performance domain.</b>				
<b>Athletic Training Evaluation</b>	Determination of an athlete's physical readiness to participate.	Identification of underlying trauma.	Ongoing evaluation of an athlete's progress through various stages of rehabilitation.	Documentation of injury status and rehabilitation.	Remains up-to-date with current evaluation skills, techniques and knowledge.
<b>Human Anatomy</b>	Normal anatomical structure and function.	Recognition of signs and symptoms of athletic injury and illness.	Normal anatomical structure and function.		Remains up-to-date in current human anatomical research and trends.
<b>Human Physiology</b>	Normal physiological function.	Recognition of signs and symptoms of athletic injury and illness.	Stages of injury response.		Remains up-to-date in current human physiology research and trends.
<b>Exercise Physiology</b>	Physiological demand and response to exercise.	Recognition of systemic and local metabolic failure.	Musculoskeletal and cardiovascular demands placed on the injured athlete.		Remains up-to-date with current exercise physiology research and trends.
<b>Biomechanics</b>	Normal biomechanical demands of exercise.	Identification of pathomechanics.	Resolution of pathomechanical motion.		Remains up-to-date with current biomechanical research and trends.
<b>Psychology/Counseling</b>	Educational program for the healthy and injured athlete (i.e., alcohol and other drug abuse, performance anxiety).	Recognition of the psychological signs and symptoms of athletic injury and illness.	Psychological implications of injury.	Communication with, and referral to, the appropriate health care provider.	Continues to develop interpersonal and communication skills.
<b>Nutrition</b>	Nutritional demands of the athlete.	Recognition of the effects of improper nutritional needs of the competing athlete (i.e., fluid replacement, diabetic shock).	Nutritional demands placed on the injured athlete.	Referral to the appropriate health care provider.	Remains up-to-date with current nutritional research and trends.
<b>Pharmacology</b>	Contraindications and side effects of prescription and non-prescription medications.	The role of prescription and non-prescription medication in the immediate/emergency care of athletic injury and illness.	The role of prescription and non-prescription medications in the stages of injury response.	Proper maintenance and documentation of records for the administration of non-prescription medication.	Remains up-to-date with current pharmacological research and trends.
<b>Physics</b>	Absorption, dissipation, and transmission of energy of varying materials.	The effect of stress loads on the human body (i.e., shear, tensile, compressive forces).	Physiological response to various energies imposed on the body.		Remains up-to-date with current knowledge of physics as it relates to athletic training.
<b>Organization and Administration</b>	Legal requirements and rules of the sport.	Planning, documentation, and communication of appropriate rehabilitation strategies to the necessary parties.	Planning, documentation, and communication of appropriate rehabilitation strategies to the necessary parties.	Development of operational policies and procedures.	Remains up-to-date with current standards of professional practice.

Appendix C

RESPONDENTS' AND PANELIST' IMPORTANCE OF THE  
ROLE DELINEATION STUDY (NATABOC)

variables, it is important to validate the panel's analysis of the profession with input from practitioners. In order to validate the study of the profession, CAS analyzed survey results to determine whether practitioners evaluate the domains and task statements in a manner that is similar to the Role Delineation Panel.

First, CAS compared a summary of the respondents' evaluations of the major performance domains to the Role Delineation Panel's evaluations. If the respondents and the panel's evaluations are relatively parallel, then it is reasonable that the role delineation as prepared by the subject matter experts is a valid assessment of the profession. The survey respondents were asked to evaluate the five domains according to the same five-point scales used by the panel.

**Importance Ratings:**

1. **Not Important.** Performance of tasks in this domain is not essential to the job performance of the entry-level athletic trainer.
2. **Somewhat Important.** Performance of tasks in this domain is minimally essential to the job performance of the entry-level athletic trainer.
3. **Important.** Performance of tasks in this domain is moderately essential to the job performance of the entry-level athletic trainer.
4. **Very Important.** Performance of tasks in this domain is clearly essential to the job performance of the entry-level athletic trainer.
5. **Extremely Important.** Performance of tasks in this domain is absolutely essential to the job performance of the entry-level athletic trainer.

As depicted below, survey respondents and panelists rated all domains as very important or important.

Domain	Respondents' Importance Ratings	Panelists' Importance Ratings
I. Prevention	4.14	4.71
II. Recognition, Evaluation and Assessment	4.75	4.96
III. Immediate Care	4.81	5.00
IV. Treatment, Rehabilitation and Reconditioning	4.39	4.50
V. Organization and Administration	3.41	3.96
VI. Professional Development and Responsibility	3.58	4.13

Average ratings in Domains II (Recognition, Evaluation and Assessment) and III (Immediate Care) fall well into the "very important" category for both the respondents and the panelists, while I (Prevention) and IV (Treatment, Rehabilitation and Reconditioning) are very important to the panelists. Many of the responsibilities associated with these domains may directly impact the provision of athletic training services. For example, Domain II/Task E states: "Formulate a clinical impression by interpreting the signs and symptoms of the injury, illness or condition to determine

Appendix D

JOURNAL OF ATHLETIC TRAINING AUTHOR NOTES

## Authors' Guide

(Revised January 2005)

The mission of the *Journal of Athletic Training* is to enhance communication among professionals interested in the quality of health care for the physically active through education and research in prevention, evaluation, management, and rehabilitation of injuries.

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- of funds, their names should be listed parenthetically.
4. Authors must specify whether they have any commercial or proprietary interest in any device, equipment, instrument, or drug that is the subject of the article in question. Authors must also reveal if they have any financial interest (as a consultant, reviewer, or evaluator) in a drug or device described in the article.
  5. For experimental investigations of human or animal subjects, state in the Methods section of the manuscript that an appropriate institutional review board approved the project. For those investigators who do not have formal ethics review committees (institutional or regional), the principles outlined in the Declaration of Helsinki should be followed (41st World Medical Assembly, Declaration of Helsinki: recommendations guiding physicians in biomedical research involving human subjects. *Bull Pan Am Health Organ*. 1990;24:606-609). For investigations of human subjects, state in the Methods section the manner in which informed consent was obtained from the subjects. (Reprinted with permission of *JAMA* 1997;278:68, copyright 1997, American Medical Association.) If informed consent was not required because the study was exempt, provide the reason for the exemption.
  6. The *Journal of Athletic Training* uses a double-blind review process. Authors and institutions should not be identified in any way except on the title page.
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### STYLE POLICIES

8. Each page must be formatted for 8½-by-11-inch paper, double spaced, with 1-inch margins in a font no smaller than 10 points. Include line counts on each page to facilitate the review process. Do not right justify pages.
9. Manuscripts should contain the following, organized in the listed order, with each section beginning on a separate page:
  - a. Abstract and Key Words (first numbered page)
  - b. Text (body of manuscript)
  - c. References
  - d. Legends to figures

The title page and acknowledgments should be submitted online as supplemental materials. Tables should be submitted in a separate file, as should figures; neither should be included in the manuscript.
10. Begin numbering the pages of your manuscript with the abstract page as #1; then, consecutively number all successive pages.
11. Units of measurement shall be recorded as SI units, as specified in the *AMA Manual of Style*, except for angular displacement, which should be measured in degrees rather than radians. Examples include mass in kilograms (kg), height in centimeters (cm), velocity in meters per second ( $m \cdot s^{-1}$  or m/s), angular velocity in degrees per second ( $^{\circ} \cdot s^{-1}$ ), force in Newtons (N), and complex rates (mL/kg per minute).
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13. The title page should also include the name, title, affiliation, and e-mail address of each author, and the name, address, phone number, fax number, and e-mail address of the author to whom correspondence is to be directed. No more than 4 credentials should be listed for each author. The "ATC" credential is under the copyright protection of the NATA Board of Certification. Therefore, the proper listing of an additional state credential is "LAT, ATC" or "ATR, LAT."
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15. Begin the text of the manuscript with an introductory paragraph or two in which the purpose or hypothesis of the article is clearly stated and developed. Tell why the study needed to be done or the article written, and end with a statement of the problem (or controversy). Highlights of the most prominent works of others as related to your subject are often appropriate for the introduction, but a detailed review of the literature should be reserved for the Discussion section. In a 1- to 2-paragraph review of the literature, identify and develop the magnitude and significance of the controversy, pointing out differences among others' results, conclusions, and/or opinions. The Introduction is not the place for great detail; state the facts in brief, specific statements and reference them. The detail belongs in the Discussion. Also, an overview of the manuscript is part of the abstract, not the introduction. Writing should be in the active voice (for example, instead of "Subjects were selected," use "We selected subjects") and in the first person (for example, instead of "The results of this study showed," use "Our results showed").
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## Authors' Guide

- using descriptive and inferential statistics and a few well-planned and carefully constructed illustrations. For more information on preparing research manuscripts, authors are advised to consult the MOOSE and QUORUM statements, which are available through the *JAT* Web site.
- b. The body of a **Case Report** should include the following components: personal data (age and sex and, when relevant, race, marital status, and occupation but not name or initials), chief complaint, history of present complaint (including symptoms); results of physical examination (example: "Physical findings relevant to the rehabilitation program were . . ."); medical history (surgery, laboratory results, examination, etc); diagnosis, treatment and clinical course (rehabilitation until and after return to competition); criteria for return to competition; and deviation from expectations (what makes this case unique).
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- d. The body of an **Evidence-Based Practice** article provides a short review of current scientific literature and applies the findings to clinical athletic training practice. All articles submitted for this section should be concise reviews of published systematic reviews or meta-analyses on topics relevant to the 7 domains of athletic training (Prevention, Assessment/Evaluation, First Aid/Treatment, Rehabilitation, Organization/Administration, Counseling, and Education). Reviews of individual, large, controlled clinical trials will also be considered. The review must begin with the complete article title and reference and a statement of the clinical question the review addresses. The rest of the review consists of a summary of the article and must include the following sections: data sources and search terms used; study selection (inclusion and exclusion) criteria; the methods used to extract and review data, including a list of the primary outcome measures; results of the search strategy; and primary outcome measures and conclusions. A separate commentary section should address the application of the information to the clinical athletic training setting. Authors may use supplementary scientific literature (up to a maximum of 5 references) to support the commentary.
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- Journals:**
1. Pitney WA, Ehlers GG. A grounded theory study of the mentoring process involved with undergraduate athletic training students. *J Athl Train*. 2004;39:344-351.
  2. White LM, Miniaci A. Cruciate and posterolateral corner injuries in the athlete: clinical and magnetic resonance imaging features. *Semin Musculoskelet Radiol*. 2004;8:111-131.
- Books:**
1. Magee DJ. *Orthopedic Physical Assessment*. Philadelphia, PA: WB Saunders Co; 2002;45-56.
  2. Robertson G, Caldwell G, Hamill J, Kamen G, Whittlesey S. *Research Methods in Biomechanics*. Champaign, IL: Human Kinetics; 2004;128-136.
- Presentations:**
1. Layton JA, Thigpen CA, Padua DA, Karas SG. Reliability of scapula protraction strength measures. Presented at: 55th Annual Meeting and Clinical Symposia of the National Athletic Trainers' Association; June 17, 2004; Baltimore, MD.
- Videos:**
1. *Spine Injury Management* [videotape]. Champaign, IL: Human Kinetics; 2001.
- Software:**
1. *SPSS Base for Windows* [computer program]. Version 13.0. Chicago, IL: SPSS Inc; 2005.
- Internet Sources:**
1. National Athletic Trainers' Association position statement: management of sport-related concussion. Available at: <http://www.nata.org/publicinformation/files/concussion.pdf>. Accessed January 3, 2005.
  2. ACSM guidelines for healthy aerobic activity. Available at: <http://www.acsm.org/pdf/Guidelines.pdf>. Accessed January 3, 2005.
22. Personal communications are cited in the text as follows: ". . . (J.A. Smith, written communication, January 2005)." The written or oral nature of the communication is stated, and the communication does not appear in the reference list. Authors must provide written permission from each personal-communication source. A form is available on the *JAT* Web site and from the Editorial Office.
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Appendix E

ATHLETIC TRAINING EVALUATION PORTION OF THE CPAT

## COACHES PERCEPTIONS OF ATHLETIC TRAINING QUESTIONNAIRE

### Directions

This questionnaire is designed for you to rate, in your opinion, how essential of the tasks provided below are of the ATC to perform. This is not an assessment of your current athletic trainer. It is an assessment of job task importance of the athletic trainer. Please circle one of the numbers on a Likert scale of 5-1 (5-very essential to 1-not essential at all).

Domain 1-Prevention	Very Essential	4	3	2	1	Not Essential At All
1. Educate the appropriate individual(s) about risks associate with participation using effective communication techniques to minimize risk of injury.	5	4	3	2	1	
2. Review preparticipation screening information by applying accepted guidelines to minimize the risk of injury illness.	5	4	3	2	1	
3. Instruct the appropriate individual(s) About required standard protective equipment to minimize risk of injury.	5	4	3	2	1	
4. Apply appropriate prophylactic/protective measures using commercial products of custom-made devices to minimize risk of injury.	5	4	3	2	1	
5. Identify safety hazards in activity areas and equipment by following established procedures to make appropriate recommendations and minimize risk of injury.	5	4	3	2	1	
6. Monitor participants and environmental conditions following accepted guidelines to make recommendations regarding safe participation.	5	4	3	2	1	
<b>Domain 2-Recognition, Evaluation and Assessment</b>						
7. Facilitate physical conditioning by designing and implementing appropriate programs to minimize risk of injury.	5	4	3	2	1	
8. Maintain clinical and treatment areas by complying with safety and sanitation standards to minimize risk of injury or illness.	5	4	3	2	1	
9. Promote sound nutritional practices by encouraging adherence to accepted guidelines to minimize risk of injury and illness.	5	4	3	2	1	
10. What is your overall rating of Domain 1 – Prevention.	5	4	3	2	1	
<b>Domain 2-Recognition, Evaluation and Assessment</b>						
1. Obtain a history through observation, interview, and/or review of relevant records to assess the pathology and extent of the injury, illness or condition.	5	4	3	2	1	
2. Inspect the involved area(s) visually to assess the pathology and extent of the injury, illness or condition.	5	4	3	2	1	
3. Palpate the involved area(s) using Standard techniques to assess the pathology and extent of the injury, illness or condition.	5	4	3	2	1	
4. Perform specific tests systematically to assess the pathology and extent of the injury, illness or condition.	5	4	3	2	1	
5. Formulate a clinical impression by interpreting the signs and symptoms of the injury, illness or condition to determine the appropriate course of action.	5	4	3	2	1	

6.	Educate the appropriate individual(s) about the assessment by communicating information about the injury, illness or condition to encourage compliance with recommended care.	5	4	3	2	1		
7.	Inform members of the health care team about your assessment through direct communication to facilitate appropriate care.	5	4	3	2	1		
8.	What is your overall rating of Domain 2 - Recognition, Evaluation and Assessment?	5	4	3	2	1		
<b>Domain 3 - Immediate Care</b>								
		<b>Very Essential</b>		<b>Not Essential at All</b>				
1.	Initiate and/or execute techniques to Mitigate life-threatening and other emergency conditions through the use of standard emergency care procedures.	5	4	3	2	1		
2.	Initiate care for medical conditions to stabilize and/or prevent exacerbation of the condition through the use of standard techniques.	5	4	3	2	1		
3.	Initiate care for musculoskeletal conditions to stabilize and/or prevent exacerbation of the condition through the use of standard techniques.	5	4	3	2	1		
4.	Facilitate referral or guidance for psychosocial crises by implementing established intervention strategies to match services to the need.	5	4	3	2	1		
5.	Educate appropriate individuals in standard immediate care procedures using formal and informal methods to facilitate immediate care.	5	4	3	2	1		
6.	What is your overall rating of Domain 3 - Immediate Care?	5	4	3	2	1		
<b>Domain 4 - Treatment, Rehabilitation, and Reconditioning</b>								
		<b>Very Essential</b>		<b>Not Essential at All</b>				
1.	Administer therapeutic exercise using standard techniques and procedures to facilitate recovery, function and/or performance.	5	4	3	2	1		
2.	Administer therapeutic modalities using standard techniques and procedures to facilitate recovery, function and/or performance.	5	4	3	2	1		
3.	Administer treatment for general illnesses and/or conditions using standard techniques and procedures to facilitate recovery, function and/or performance.	5	4	3	2	1		
4.	Reassess the status of the injury, illness, or condition using standard techniques to determine appropriate treatment, rehabilitation and/or reconditioning and to evaluate readiness to return to a desired level of activity.	5	4	3	2	1		
5.	Educate the appropriate individual(s) in the treatment, rehabilitation and reconditioning of injuries, illnesses and/or conditions using applicable methods and materials to facilitate recovery, function and/or performance.	5	4	3	2	1		
6.	Provide guidance for the appropriate individual(s) in the treatment, rehabilitation and reconditioning of injuries, illnesses and/or conditions through communication to facilitate recovery, function and/or performance.	5	4	3	2	1		
7.	What is your overall rating of Domain 4 - Treatment, Rehabilitation and Reconditioning?	5	4	3	2	1		

<b>Domain 5-Organization and Administration</b>		<b>Very Essential</b>	<b>Not Essential At All</b>			
1.	Establish a plan of action using available resources to provide routine and emergency health care services for individuals, athletic activities and events.	5	4	3	2	1
2.	Write policies and procedures for individuals by following established guidelines to promote safe participation, timely care and legal compliance.	5	4	3	2	1
3.	Write policies and procedures for facilities, treatment and activity areas by referring to existing guidelines to promote safety and legal compliance.	5	4	3	2	1
4.	Comply with safety and sanitation standards for treatment and activity areas by establishing policies and procedures to meet the current standard of care.	5	4	3	2	1
5.	Manage resources by constructing and monitoring an annual budget and time management plan to provide for appropriate health care services.	5	4	3	2	1
6.	Maintain records using an appropriate system to document the services rendered and provide for continuity of care.	5	4	3	2	1
7.	What is your overall rating of Domain 5 - Organization and Administration?	5	4	3	2	1
<b>Domain 6-Professional Development and Responsibility</b>		<b>Very Essential</b>	<b>Not Essential at All</b>			
1.	Demonstrate appropriate professional conduct by complying with applicable standards to provide quality athletic training services.	5	4	3	2	1
2.	Maintain competence through continuing education to provide quality athletic training services.	5	4	3	2	1
3.	Educate the public about the role and standards of practice of the athletic trainer through informal and formal means to improve the public's ability to make informed decisions about the use of athletic training services.	5	4	3	2	1
4.	Adhere to statutory, regulatory and case law relating to the practice of athletic training by maintaining and understanding of these requirements to contribute to the safety and welfare of the public and the profession.	5	4	3	2	1
5.	What is your overall rating of Domain 6 - Professional Development and Responsibility?	5	4	3	2	1

Appendix F  
DEMOGRAPHICS AND OVERALL RATING  
OF THE SURVEY SECTION OF THE CPAT

**Demographic Information**

Gender: M F Age: \_\_\_\_\_

How many years have you been a head coach at the college where you are now?

How many total years have you had as a head coach at the Division I level?

Of those total years of head coaching, how many years have you worked with a certified athletic trainer?

How many years have you worked with your present team's athletic trainer?

Is your team's athletic trainer a male or a female?

1. Job Title: \_\_\_\_\_

2. Job Location: \_\_\_\_\_

**Coaches Perception Questionnaire**

- 1. Terms are clearly defined: Yes \_\_\_ No \_\_\_
- 2. Language is clear and concise: Yes \_\_\_ No \_\_\_
- 3. Information is accurate: Yes \_\_\_ No \_\_\_
- 4. Information is easy to understand: Yes \_\_\_ No \_\_\_
- 5. Information is arranged in logical order: Yes \_\_\_ No \_\_\_
- 6. Question pertaining to coaches' knowledge of the ATC's role is appropriate for educational purposes: Yes \_\_\_ No \_\_\_

Comments/Suggestions:

**Appendix G**  
**NCAA DIVISION I CONFERENCE AND SCHOOLS**  
**INCLUDED IN PILOT STUDY**



PACIFIC TEN CONFERENCE (PAC 10)

Arizona  
Arizona State (ASU)  
Oregon  
Oregon State  
UCLA  
USC  
Washington  
Washington State

Nine total schools were included in the pilot study. Four selectively chosen teams (two men's and two women's) were chosen per school for the study (N=36).

Appendix H  
COVER LETTER FOR SURVEY



**San José State**  
UNIVERSITY

**College of Applied  
Sciences and Arts  
Department of Human  
Performance**

One Washington Square  
San José, CA 95192-0054  
Voice: 408-924-3010  
Fax: 408-924-3053

Head Coach  
Head Football Coach  
University  
P.O. Box  
Address  
City, State, Zip Code

Dear Head Coach,

I am sending you this packet and asking you to complete this questionnaire regarding coaches knowledge of certified athletic trainers. I am currently completing my master's degree in Kinesiology with a concentration Athletic Training at San Jose State University and your response is important.

The purpose for my study is to determine NCAA Division I head coaches' knowledge of the certified athletic trainer's (ATC) tasks. **This survey is not an assessment of your team's current ATC.** These results will determine what tasks or roles outlined by the National Athletic Trainer's Association Board of Certification (NATABOC) Role Delineation Study the head coach perceives are essential to the overall well being of the athlete and the team.

Please take only 10 minutes to complete this survey. In accordance with guidelines regarding research with human subjects: (a) your participation is voluntary and no risks to you through participation are expected, (b) nothing adverse results from a decision not to participate in this study or any part of this study, and (c) all responses will be recorded anonymously (return envelopes have been coded to facilitate a follow up mailing only). Additionally, your decision to complete and return the questionnaire implies you have given informed consent for participation in this study.

Any questions or complaints regarding this project may be directed to Dr. Leamor Kahanov, Director Graduate Athletic Training Program, Human Performance Department at (408) 924-3040, or Dr. Nabil Ibrahim, Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2380

Your consent to participate in this survey and response is much needed. Please fill out and complete the survey booklet and return it within three weeks in the enclosed self-addressed stamped envelope.

Your time and cooperation is greatly appreciated. Thank you in advance for taking time out of your demanding schedule.

Sincerely,

Mark Snow, ATC  
Graduate Assistant Athletic Trainer-Stanford University

The California State University:  
Castroville & Chico  
Hawthorne, Chico, Dominguez Hills,  
Fresno, Fullerton, Hayward, Humboldt,  
Long Beach, Los Angeles, Maritime Academy,  
Monterey Bay, Northridge, Pomona,  
Sacramento, San Bernardino, San Diego,  
San Francisco, San Jose, San Luis Obispo,  
San Marcos, Sonoma, Stanislaus

Appendix I  
POSTCARD

Dear Coach,

This is a quick reminder asking you to fill out the coaches perceptions towards trainers on the job tasks survey that was sent to you three weeks ago. The purpose for my study is to determine NCAA Division I head coaches knowledge of the certified athletic trainers (ATC) tasks. **This survey is not an assessment of your team's current ATC.** These results will determine what tasks or roles outlined by the National Athletic Trainers Association Board of Certification (NATABOC) Role Delineation Study the head coach perceives are essential to the overall well being of the athlete and the team. Your consent to participate in this survey and response is much needed. Please fill out and complete the survey booklet and return it as soon as possible. If you have not yet received a survey packet, one will be sent to you within two weeks. Your time and cooperation is greatly appreciated. Thank you in advance for taking time out of your demanding schedule.

Sincerely,

*Mark Snow, ATC*

Mark Snow, ATC  
Graduate Assistant Athletic Trainer  
Stanford University

