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AN ASSESSMENT OF NEED FOR A N.A.T.A. ATHLETIC TRAINING
CERTIFICATION PROGRAM FOR MIDDLE TENNESSEE STATE
UNIVERSITY

Middle Tennessee State University

D.A.

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AN ASSESSMENT OF NEED FOR A N.A.T.A. ATHLETIC
TRAINING CERTIFICATION PROGRAM FOR MIDDLE
TENNESSEE STATE UNIVERSITY

Herbert B. Cline III

A dissertation presented to the
Graduate Faculty of Middle Tennessee State University
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for the degree Doctor of Arts

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AN ASSESSMENT OF NEED FOR A N.A.T.A. ATHLETIC
TRAINING CERTIFICATION PROGRAM FOR MIDDLE
TENNESSEE STATE UNIVERSITY

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ABSTRACT

AN ASSESSMENT OF NEED FOR A N.A.T.A. ATHLETIC TRAINING CERTIFICATION PROGRAM FOR MIDDLE TENNESSEE STATE UNIVERSITY

by Herbert B. Cline III

The primary purpose of this study was to assess whether a need for N.A.T.A. (National Athletic Trainers Association) certified athletic trainers in senior high school (grades 9-12 and 10-12) exists in the middle Tennessee area and to determine whether such services were desired by school officials.

To determine such a need, the investigator administered color coded questionnaires to 93 senior high school principals within a fifty-mile radius of Murfreesboro, Tennessee, to 829 athletic coaches who attended the Tennessee Secondary School Athletic Association (T.S.S.A.A.) clinic held on July 25-27, 1979, at Middle Tennessee State University's Murphy Athletic Center, and to 161 freshman and sophomore students enrolled in ten randomly selected physical education activity courses at Middle Tennessee State University during the fall semester of 1979.

Herbert B. Cline III

Data were collected and analyzed during the spring, summer, and fall semesters of 1979. The results were put into frequencies and percentages were derived. Confidence interval estimates were computed at the .50 level so that predictions could be made about specific responses on certain questionnaire items that would aid in achieving the purpose of the study. A significance of the proportions, analyzed at the .01 level, was also utilized to determine if there were differences of opinions of coaches and principals surveyed on certain responses. There was found to be a significant difference of opinions wherever this statistical technique was employed.

The final conclusions of the study show a need for a National Athletic Trainers Association (N.A.T.A.) certification program at Middle Tennessee State University. It was concluded that, due to the lack of certified trainers, coaches were the major providers of treatment and care for athletic injuries and that there is a definite need for certified trainers in senior high schools.

The majority of coaches and principals indicated that a N.A.T.A. athletic training certification program was needed at a state university and would be beneficial to the region.

In memory of Sayers "Bud" Miller who dedicated his career to the promotion of the National Athletic Trainers Association, and the athletic training profession.

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Chapter 1

INTRODUCTION

A personal letter from Sayers Miller, Chairman of the Professional Education Committee of the National Athletic Trainers Association, indicates that there are approximately 300,000 sports-related injuries in the United States each year.¹

Ocania Chalk, a staff writer for Occupational Outlook Quarterly, defines an athletic trainer as a paramedic who gives first aid and rehabilitation treatments to injured athletes.²

There are approximately fifty-three colleges and universities in the United States that offer an athletic training certification program, either on the undergraduate or graduate level. East Tennessee State University has applied to initiate an N.A.T.A. program. It has been given probationary approval by the N.A.T.A. for two years. The

¹Personal correspondence, Sayers "Bud" Miller to the writer, March 9, 1979.

²Ocania Chalk, "Athletic Trainer," Occupational Outlook Quarterly, XVIII (Spring, 1974), 29.

other institutions of higher learning in Tennessee have not initiated such a program.

The pursuit of a needs assessment study could pioneer a certification program for Middle Tennessee State University which would help alleviate some of the problems that arise due to sports injuries.

STATEMENT OF THE PROBLEM

The primary purpose of this study was to assess whether a need for National Athletic Trainers Association (N.A.T.A.) certified athletic trainers in senior high schools (grades 9-12 and 10-12) exists in the middle Tennessee area and to determine whether such services were desired by school officials. The secondary purpose was to report to the N.A.T.A. the results and determine if it would be beneficial to initiate an athletic training certification program at Middle Tennessee State University.

To determine such a need, the investigator administered a questionnaire to senior high school principals within a fifty-mile radius of Murfreesboro, Tennessee, to athletic coaches who attended the Tennessee Secondary School Athletic Association (T.S.S.A.A.) clinic held on July 25-27, 1979, at the Murphy Athletic Center, and to freshman and sophomore students who enrolled in physical education activity courses at Middle Tennessee State University during the fall semester of 1979.

HYPOTHESIS

Because this study is descriptive, there will be no specific hypothesis to be tested. Engelhart states in his book, Methods of Educational Research:

In survey or other descriptive studies in education problems may be merely declarative statements of the purpose of the research; or they may be general questions followed by subordinate questions. Although the questions may imply hypotheses or tentative solutions, such solutions are seldom stated in connection with the statement of the problem. The answers are in the data later reported and summarized.³

On page 48, Engelhart further states concerning the use of hypotheses:

In many reports of survey-type research, hypotheses are not stated. Where the problem is one of describing practices or conditions without concern for relationships, the problem does not call for the testing of hypotheses.⁴

The investigator, however, compared the opinions of senior high school principals and athletic coaches on questionnaire items 4, 8, and 16 to explore possible differences on key questions. For those items, the following null hypothesis was stated: There will be no significant difference in the opinions of senior high school principals and athletic coaches concerning the "yes" category of the following questionnaire items:

³Max D. Engelhart, Methods of Educational Research (Chicago: Rand McNally and Company, 1972), p. 17.

⁴Engelhart, p. 48.

Item 4. If you had a vacancy on your faculty would you recommend hiring a certified athletic trainer who is qualified to teach various subject areas, such as Science, English, Chemistry, Mathematics, Physical Education, etc.?

Item 8. Is there anyone presently on your faculty who would be interested in obtaining athletic training certification?

Item 16. Do you know of any graduating students who might be interested in becoming certified trainers?

NEED FOR THE STUDY

In an initial investigation, the writer determined the number of certified athletic trainers who are "actively engaged" in the profession in Tennessee and how many of those who are high school trainers.

The task was accomplished by: (1) a computer print-out sheet supplied by the National Athletic Trainers Association headquarters in Greenville, North Carolina, dated August 29, 1979,⁵ and (2) numerous personal telephone calls made by the researcher. The telephone calls were made during the week of September 11-18, 1979. Only those

⁵"Master File Listing," National Athletic Trainers Association, Greenville, North Carolina, August 29, 1979. (Computer Print-out Sheet)

members with "certified" status were considered. The results of the information gathered are as follow:

<u>Total No. Certified Trainers with Addresses in Tennessee</u>	<u>Certified Trainers in Colleges and Universities</u>	<u>Certified Trainers in High Schools</u>	<u>Other</u>
31	22	2	7

Of the twenty-two college or university trainers, twenty-one were "actively engaged" at state institutions, while one was "actively engaged" at an institution in another state. Two certified athletic trainers with addresses in Tennessee were "actively engaged" in high schools. One was at McCallie School near Chattanooga, while the other certified trainer was employed in a high school in northern Illinois. Of the seven N.A.T.A. certified trainers listed under the category "other," two of the seven were also certified physical therapists and were working in local hospitals in their communities, four were not "actively engaged," and one person with certified status failed to respond to the telephone calls. (See Appendix A for a list of all certified athletic trainers with Tennessee addresses.)

In this study, the writer assessed the need for initiating an athletic training certification program at Middle Tennessee State University. Several factors call for the need for such a study. First, there is not an institution of higher learning, state or private, in Tennessee that offers an approved N.A.T.A. certification program; second, there are 300,000 sports-related injuries

that occur in the United States each year according to the National Athletic Trainers Association; third, as previously stated, Tennessee has only one N.A.T.A. certified athletic trainer employed in its senior high schools; fourth, a review of the literature indicates a need for certified athletic trainers in secondary schools, colleges, and universities; fifth, there are only two institutions within the five-state area of Kentucky, Alabama, Tennessee, Georgia, and Mississippi that offer a certification program for athletic trainers; sixth, future governmental legislation, if passed, may require all secondary schools, colleges, and universities who field athletic teams to employ an athletic trainer certified by the National Athletic Trainers Association; and, seventh, through a certification program, Middle Tennessee State University has the opportunity to serve the immediate geographical area, state, and nation.

DELIMITATIONS OF THE STUDY

1. This study used three color-coded questionnaires administered to senior high school principals, athletic coaches, and Middle Tennessee State University freshman and sophomore students.

2. The assessment of need for certified athletic trainers was based on responses to items of the questionnaires administered to the sampled populations.

3. The evidence of need brought forth in this study should be reported to the National Athletic Trainers Association (N.A.T.A.) for the purpose of initiating an athletic training certification program at Middle Tennessee State University.

DEFINITIONS OF TERMS

For the purpose of clarity, the following terminology will be defined:

First aid--emergency care and treatment of an injured person before complete medical and surgical treatment can be secured.⁶

Athletic trainer--a person who prevents, treats, and rehabilitates athletic-related injuries.

Certified athletic trainer--a person who has completed the necessary requirements established by the National Athletic Trainers Association (N.A.T.A.).

Athletic training--a paramedical profession seeking to apply medical knowledge to the health needs of active athletes.⁷

Athletic training certification program--a program, either graduate or undergraduate, which adheres to prescribed

⁶Dorland's Pocket Medical Dictionary (2d ed.; Philadelphia: W. B. Saunders Co., 1968), p. 250.

⁷Dwayne Dixon, The Dixonary of Athletic Training (Lithographed in the United States; Copyright, 1965), p. v.

courses and follows the guidelines established by the National Athletic Trainers Association (N.A.T.A.).

N.A.T.A.--National Athletic Trainers Association which was founded in 1950 in Kansas City, Missouri, for the express purposes of establishing professional standards and exchanging and disseminating information.⁸

N.A.T.A. guidelines--those standards established by the National Athletic Trainers Association for certification and approved curricula.

College of Sports Medicine--an organization founded in 1954 which is dedicated to the promotion of research in medical problems encountered in physical exercise and sports.⁹

Therapeutic modalities--all agents used in the treatment of an injury such as massage, cryotherapy, thermotherapy, and electrical therapies.¹⁰

H.E.W.--Department of Health, Education and Welfare.

N.C.A.A.--the National Collegiate Athletic Association.

⁸Carl E. Klafs and Daniel D. Arnheim, Modern Principles of Athletic Training (3rd ed.; St. Louis: C. V. Mosby Co., 1973), p. 5.

⁹Klafs and Arnheim, p. 14.

¹⁰Klafs and Arnheim, p. 167.

A.T.C.--Certified Athletic Trainer.

C.E.U.--Continuing Education Units.

T.S.S.A.A.--Tennessee Secondary School Athletic Association.

Curriculum--a fixed series of studies required, as in a college, for graduation, qualification in a major field of study, etc.¹¹

Accredited--to certify as meeting a certain set of standards (colleges may be accredited by regional associations).¹²

¹¹Webster's New World Dictionary (2d ed.; Cleveland: The World Publishing Company, 1970), p. 348.

¹²Webster's New World Dictionary, p. 10.

Chapter 2

REVIEW OF RELATED LITERATURE

More revenue each year is funnelled into sports and recreational programs. Cities and towns across the nation are building new athletic and recreational facilities to accommodate the influx of participants.

The N.A.T.A. postulates that there are approximately 300,000 sports-related injuries each year in the United States. Dr. Hirata, author of The Doctor and the Athlete, states that, with the increasing activity in little leagues, other similar organizations, and the growing impact of mass media on every facet of amateur and professional athletics, there is an ever-increasing need for physicians and proper medical care.¹

The review of the literature has been divided into the following areas: history of athletic training; need for athletic training certification; N.A.T.A. guidelines for developing a certification program; continuing education requirements; changes in certification guidelines; and

¹Isao Hirata, Jr., The Doctor and the Athlete (2d ed.; Philadelphia: J. B. Lippincott Company, 1974), p. 3.

government legislation influencing the certification of athletic trainers.

HISTORY OF ATHLETIC TRAINING

The term "athletic trainer" was first mentioned in the literature during the "golden age" of Greece. Klafs and Arnheim indicate that the appearance of the professional athlete in Athens brought about the "gymnastics," men trainers, who not only trained the athletes in techniques of sport but also had a rudimentary knowledge of anatomy, physiology, and dietetics.² The "paidotribal," youth-rubbers, and the "aleiptes," anointers, were also considered professional trainers and were skilled in massage techniques, fundamental of diet, and the general fitness of the athlete, which was their major concern.³

The greatest of all Greek trainers, Herodicus of Megura, advocated medical gymnastics to treat injuries. He taught Hippocrates, who was later to become the "father of modern medicine."⁴

²Carl E. Klafs and Daniel D. Arnheim, Modern Principles of Athletic Training (3rd ed.; St. Louis: C. V. Mosby Co., 1973), p. 3.

³Klafs and Arnheim, p. 3.

⁴H. A. Harris, Greek Athletes and Athletics (London: Hutchinson of London, 1964), p. 178.

Scholars report that the first recorded date of the Olympic Games is 776 B.C. Competitors from such city-states as Sparta, Athens, and Thebes met at Olympia.⁵ With athletics becoming more and more commercialized in the Olympic and Greek era, they no longer played a role in the lives of the average citizen. As far as sports medicine was concerned, there was an increasing need for physicians with a knowledge of athletic injuries.⁶

Claudius Galen, a Roman physician practicing medicine in 160 A.D., is considered by many to be one of the greatest medical authorities of all times. He advocated that the practices of coaches and athletic trainers were completely opposite of the health doctrines taught by himself and Hippocrates. He ascertained that athletic training was useless and meaningless in real life.⁷

Athletic training experienced a state of dormancy for a period of 2,000 years. In 1881, Harvard University was the first institution of higher learning to employ an athletic trainer. James Robinson was hired to fill that

⁵C. W. Hackensmith, History of Physical Education (New York: Harper and Row, 1966), p. 39.

⁶Lawrence E. Moorehouse and Phillip J. Rasch, Sports Medicine for Trainers (2d ed.; Philadelphia: W. B. Saunders Company, 1963), p. 5.

⁷Ellen W. Gerber, Innovators and Institutions in Physical Education (Philadelphia: Lea and Febiger, 1971), p. 77.

position.⁸ The University of Oklahoma followed suit in 1897 and hired Vernon Parrington as trainer-coach in charge of athletics. His duties consisted of trainer, athletic director, manager, referee, and public relations.⁹

Charles Cramer, a varsity athlete and pharmacy student at the University of Kansas, prepared a liniment used in the treatment of sprains. Encouraged by Knute Rockne of Notre Dame, Charles (Chuck) and his brother Frank developed other products and services designed to be utilized in the field of athletic training. The Cramer brothers started the Cramer Chemical Company in 1918.¹⁰

In 1932, Charles and Frank served as trainers for the United States Olympic Track and Field team, providing a service never before available. In 1933, the Cramers began publication of The First Aider, a professional tract, sharing knowledge and ideas on the care, prevention, and treatment of athletic injuries by authorities in the field.¹¹

⁸Michael O'Shea, "The History and Development of the National Athletic Trainers Association" (unpublished Master's thesis, Kent State University, June, 1974), p. 28.

⁹O'Shea, p. 30.

¹⁰"The Cramer Story," Cramer Athletic Supply Catalog (Gardner, Kansas: printed by the Cramer Chemical Company, January, 1979), p. 30.

¹¹"The Cramer Story," p. 30.

NATIONAL ATHLETIC TRAINERS ASSOCIATION

The first recorded national association for athletic trainers was organized in the spring of 1938 at a meeting held in Des Moines, Iowa. This was the first attempt in athletic history to establish such an organization for athletic trainers.¹² That same year, the National Athletic Trainers Association's document for certification and its official insignia were designed and adopted.¹³

In 1950, Charles Cramer organized the first meeting of the National Athletic Trainers Association.¹⁴ The initial meeting was held in Kansas City, Missouri, at the Hotel Muehlach on June 24-25. It was during this introductory assembly that the N.A.T.A. received its official name.¹⁵ It was at that first meeting that the profession took on significance and purpose. The trainer's functional area has generally been accredited in the objectives founded by the N.A.T.A. at this first organizational meeting. The trainer's objectives were:

¹²Frank Cramer, ed., "Trainers Association Makes Rapid Progress," The First Aider, VII (October, 1938), 4.

¹³Bill Frey, ed., "The National Athletic Trainers Association Insignia and Certificate," Trainers Journal, I (December, 1941), 34.

¹⁴"The Cramer Story," p. 30.

¹⁵O'Shea, p. 82.

1. To advance, encourage and improve the athletic training profession in all its phases and to promote a better working relationship among those persons interested in the problems of training.
2. To develop further the ability of each of its members.
3. To better serve the common interest of its members by providing means for a free exchange of ideas within the profession.
4. To enable members to become acquainted personally through casual good fellowship.¹⁶

Membership was open to university, college, junior college, and high school trainers and coaches with the understanding that only athletic trainers from an accredited university could become a national director. In this initial meeting, Charles Cramer was elected secretary-treasurer.¹⁷

Two important events took place during the tenth annual meeting at Columbus, Ohio, June 15-17, 1959. First, the committee, on gaining recognition, was changed to the Committee for Professional Advancement. Second, the Board of Directors adopted the program of education presented by the committee.¹⁸ This was the first attempt to ratify an education program. The program of education approved by the N.A.T.A. in 1959 was as follows:

¹⁶O. William Dayton, Athletic Training and Conditioning (New York: Ronald Press Company, 1965), p. 3.

¹⁷O'Shea, p. 85.

¹⁸"The Secretarys Report," The Journal of the National Athletic Trainers Association, n.v. (Fall, 1959), 1.

- I. Comprehensive (Major) License in Physical Education Variable, by states
- II. Restricted (Minor) License in another subject Variable, by states
- III. Pre-requisites [sic] for entry in school of Physical Therapy.
 - A. Minimal requirements suggested by A.P.T.A.
 1. Total of 24 semester hours in laboratory physical, biological, and social sciences.
 2. Electives strongly advised.
- IV. Specific, Required Courses
 - A. Human Anatomy
 - B. Physiology
 - C. Physiology of exercise
 - D. Applied Anatomy and Kinesiology
 - E. Laboratory physical science
 - F. Psychology
 - G. Coaching techniques (9 semester hours)
 - H. First Aid and Safety
 - I. Nutrition and Foods
 - J. Remedial exercise
 - K. Organization and administration of health and physical education programs
 - L. Personal and Community Hygiene
 - M. Techniques of Athletic Training
 - N. Advanced Techniques of Athletic Training
 - O. Laboratory practices (6 semester hours credit or equivalent work)
- V. Recommended Courses
 - A. General Physics
 - B. Pharmacology
 - C. Histology
 - D. Pathology.¹⁹

In 1961, the Cramers introduced the first student trainer program whereby academically qualified high school

¹⁹ The National Athletic Trainers Association, Report of the Professional Advancement Committee, proposed degree program for athletic training, Lafayette, Indiana, December, 1958. (Mimeographed)

students are trained to provide first aid and assistance.²⁰
It was the first program of this type.

At the 1969 N.A.T.A. meeting in Cincinnati, Ohio, William "Pinky" Newell, head trainer at Purdue University and chairman of the Professional Advancement Committee, presented reports of two previous sub-committees designated as curriculum development and certification by examination.²¹ The sub-committee dealing with the certification of athletic trainers by examination presented procedures for certification. The first date, ever, for certification was December 31, 1969.²²

A written examination was also needed after the December date. As of the thirty-first, all present trainers who were "labeled" as active members of the association would be eligible for certification under the "grandfather clause."²³

The Professional Examination Service (P.E.S.) of the American Public Health Association was contracted to aid in the development and scoring of the test. In August of 1969, preparation of the test began. The 150-question,

²⁰"The Cramer Story," p. 30.

²¹O'Shea, p. 150.

²²O'Shea, p. 155.

²³Lindsay McLean, "Certification Examination Now in Preparation with P.E.S.," The Journal of the National Athletic Trainers Association, IV (Winter, 1969), 18.

multiple-choice examination was completed in the summer of 1970. It consisted of topics in anatomy, physiology, first aid, prevention of injury, recognition of injury, and treatment techniques. Aside from the written portion of the examination, there was an oral and practical section on athletic training.²⁴

In July, 1970, the Board of Certification became a reality and was given authorization to administer the first certification examination during the Southeast Athletic Trainers Association, District 6 meeting, at Waco, Texas.²⁵

Also, in 1970, Bruce Melin, chairman of the membership committee, presented the new membership classification. It consisted of nine classes, which gave members certain rights and privileges contained in the bylaws. The membership classifications remain the same today. They are as follow:

1. Certified
2. Active
3. Inactive
4. Student
5. Associate
6. Advisory
7. Allied
8. Honorary
9. Retired.²⁶

²⁴McLean, p. 19.

²⁵Jack Rockwell, "National Notes," The Journal of the National Athletic Trainers Association, IV (Fall, 1970), 29.

²⁶O'Shea, p. 163.

The sub-committee on curriculum development was to develop procedures for those institutions offering athletic training curriculums for N.A.T.A. approval and recommend to the Board of Directors approval of the athletic training curriculum submitted by colleges and universities.²⁷

By December of 1973, there were twenty-two schools offering an N.A.T.A. approved undergraduate curriculum in athletic training, and two schools were approved for a graduate N.A.T.A. curriculum.²⁸ (See Appendix B.)

Currently, there are fifty-two institutions of higher education that meet all requirements and offer an approved N.A.T.A. curriculum in athletic training; five institutions offer an N.A.T.A. approved graduate degree curriculum.²⁹ (See Appendix C.)

NEED FOR ATHLETIC TRAINING CERTIFICATION

Sayers "Bud" Miller, Chairman of the Professional Education Committee of the N.A.T.A., states:

²⁷Sayers Miller, "Approval of Athletic Training Curriculum at Colleges and Universities," The Journal of the National Athletic Trainers Association, V (Summer, 1970), 10.

²⁸Athletic Training Careers, the National Athletic Trainers Association Brochure, Lafayette, Indiana, the National Athletic Trainers Association, 1973. (Brochure)

²⁹Athletic Training Careers.

Since there are 53 colleges offering N.A.T.A. approved educational programs in athletic training across the nation and only two of these institutions are located in the region including the states of Kentucky, Tennessee, Georgia, Alabama, and Mississippi, it is felt that there is a definite need for this type of N.A.T.A. approved educational program in this area of the country.³⁰

Tennessee, Alabama, and Georgia do not offer a certification curriculum. Kentucky and Mississippi offer undergraduate curricula. Jim Gallaspy, Assistant Professor in the Department of Athletic Administration and Coaching at Southern Mississippi University, Hattiesburg, Mississippi, wrote:

Throughout the United States and especially in the southeast, the emergency medical care given to secondary and junior college level athletics is inadequate. Although nearly all schools participate in some type of competitive athletic program, the school administrators have fallen down on their responsibility to provide these participants with proper medical care.³¹

Bob Behnke, Indiana State's head athletic trainer for men, writes:

I believe the one overriding obligation of any athletic program is to insure the health and safety of its participants. The athletic trainer's position as a professional paramedic filling the gap between the coach and the physician is essential to good common-sensed health care for the athletic participant. The preventive efforts coupled with appropriate follow-up and referral insure the proper health care. There can be no greater justification than appropriate health care. I cannot believe that any program of athletics

³⁰Personal correspondence between Sayers "Bud" Miller and the writer, March 9, 1979.

³¹Personal correspondence between Jim Gallaspy and the writer, March 13, 1979.

cannot justify the employment of an athletic trainer. I get very frustrated when I see athletic programs with expensive uniforms, many other frills, extensive coaching staffs, and no athletic trainer. Without an athletic trainer on the staff of any athletic program, I seriously question whether appropriate health care of the participants is a concern of the program.³²

Schwank and Miller state that an increasingly greater need for athletic trainers is indicated each year by the hiring of these professionals by our schools and universities. They further state that, out of approximately 25,000 high schools across the nation, 60 percent participate in interscholastic football and about 100 schools employ a full-time teacher-trainer.³³

Klafs and Arnheim indicate that more than 900,000 boys participate in football each year and that 30,000 participate in college. They also state that the Committee on Injuries and Fatalities of the American Football Coaches Association reveals that a number of fatalities directly related to football were reported in 1971: fifteen in high school; three in college; twelve fatalities were associated with indirect causes (heat stroke, heart failure,

³²Personal correspondence between Bob Behnke and the writer, March 21, 1979.

³³Walter C. Schwank and Sayers J. Miller, "New Dimensions of the Athletic Training Profession: A Curriculum for Athletic Trainers," Journal of Health, Physical Education and Recreation (September, 1971), 41, 42.

etc.); and that 55 percent of the direct fatalities occurred to players between the ages of sixteen and eighteen years.³⁴

Rosato and Maxwell state in The National Association of Secondary School Principal Bulletin, April, 1978, issue, that 50 percent of the students involved in interscholastic athletics are injured.³⁵

Charles L. Mand, professor of physical education at Ohio State University, in a recent article, "Sports Injuries and Athletic Conditioning--A Model Program for Schools," alleges that, in a survey of schools in the Midwest concerning sports-related injuries, parents, coaches, teachers, and school administrators contributed the following responses. First, there are occasions when there is no physician or medical personnel at athletic contests, particularly freshman and reserve teams. Second, little provision is made for emergency medical supervision and support at away contests, especially freshman and reserve squads. Third, transportation procedures involving injured athletes have not been executed according to recommended first aid practices. Fourth, the training room is not easily accessible to girls, equipment, and supplies. Fifth,

³⁴Klafs and Arnheim, p. 5.

³⁵Frank Rosato and Lee Maxwell, "High Schools Can Afford Athletic Trainers--Here's How," The National Association of Secondary School Principal Bulletin, LXII (April, 1978), 85.

no one faculty member is in charge of this part of the athletic program. Sixth, the training level of coaches is uneven regarding injuries and conditioning; also, the rapid increase in the number of sports teams, especially of the girls, caused hiring coaches without specialized training. Seventh, there is no established procedure for determining the injured player's safe return to practice. Last, the role of the team physician is vague, yet the claims for malpractice are enormous.³⁶

Jack Martin states, in a survey conducted by The Physician and Sports Medicine magazine, that school officials, physicians, and others in a number of states found that health care was generally inadequate and characterized as "barbaric" by one athletic director.³⁷

A California report, "High School Athletic Survey Reveals Improvement--and Inertia," says: "No one knows how many pupils are injured during the course of a year in interscholastic athletics."³⁸

³⁶Charles L. Mand, "Sports Injuries and Athletic Conditioning--A Model Program for Schools," The National Association of Secondary School Principal Bulletin, LXII (May, 1978), 35-36.

³⁷Jack Martin, "High School Athletic Survey Reveals Improvement--and Inertia," The Physician and Sports Medicine, V (November, 1977), 91-92.

³⁸Martin, p. 92.

In Utah, a survey of high schools established the fact that most athletic programs did not have adequate medical supervision, facilities, or equipment as recommended by the American Medical Association (AMA) and the National Athletic Trainers Association (NATA).³⁹

Dr. Fred L. Allman, an affiliate of the Sports Medicine Clinic in Atlanta, Georgia, states that those who say that sports-related injuries are inevitable should be challenged, that injuries could be reduced more than 50 percent. He also points out in a report that was received from the U.S. Consumer Product Safety Commission that there were 318,000 football-related injuries treated in hospital emergency rooms across the United States, with many more seeing a physician only. There are some who never go to the doctor or to an emergency room.⁴⁰

Dr. Allen J. Ryan remarked in a recent article, "The Prevention of Injuries in Sports and Physical Recreation," that in recreational activity, especially in sports, thousands of unsafe acts are performed. The character of sports and games breeds contempt and assures a greater accident rate than daily living. He claims that the

³⁹Martin, p. 92.

⁴⁰Fred L. Allman, "The Major Concerns and Challenges in Sports Safety," Proceedings of the Second National Conference on Sports Safety (Washington, D.C.: American Alliance for Health, Physical Education and Recreation, 1977), p. 2.

first consideration of the problem is for administrators, supervisors, school principals, athletic directors, coaches, or whoever might be in charge of local and community recreation programs, and Little League baseball teams hire the necessary personnel who understand the reasons for the occurrence of sports injuries, their prevention, and treatment.⁴¹

Dr. O'Donoghue in his book, Treatment of Injuries to Athletes, declares that because of the nature of athletics youngsters are going to get hurt--sometimes fatally. He adds that it is the duty of the medical profession to accept the challenge and to do everything that is possible to minimize those obstacles that interfere with the goals of an athletic program.⁴²

In an article entitled, "Are P.E. Programs Copping-Out on Injury Prevention and Care?", it should be noted that between 50 and 200 students will be participating in athletic-related skills. These students are not athletes and are possibly uncoordinated; therefore, there are thousands of accidents looking for a place to happen. The

⁴¹Allen J. Ryan, "The Prevention of Injuries in Sports and Physical Recreation," Proceedings of the Second National Conference on Sports Safety (Washington, D.C.: American Alliance for Health, Physical Education and Recreation, 1977), pp. 12-15.

⁴²Don H. O'Donoghue, Treatment of Injuries to Athletes (2d ed.; Philadelphia: W. B. Saunders Company, 1970), p. 4.

most common injuries are ankle sprains, abrasions, minor lacerations, and bruises. Accidents occur as frequently in physical education classes as with varsity athletics.⁴³

In a recent article, "Health Care for Student Athletes," by Sam Kegerreis, the American Medical Association identifies the following components as being vital to the success of all athletic programs: good coaching, good officiating, good equipment and facilities, and good health supervision. Unfortunately, the latter of these is glaringly absent from today's secondary schools.⁴⁴

Dr. John Marshall, a New York City orthopedic surgeon at the Hospital for Special Services, states that less than 10 percent of the nation's 22,000 high schools possess adequate medical care for their athletes.⁴⁵

Richard Redfearn, assistant professor of biomechanics at Michigan State University, indicates that,

⁴³"Are P.E. Programs Copping-Out on Injury Prevention and Care?", The First Aider, XLIV (Cramer Products, Inc., Gardner, Kansas, October, 1974), 14.

⁴⁴Sam Kegerreis, "Health Care for Student Athletes," The Journal of Physical Education and Recreation, L (June, 1979), 78.

⁴⁵Lou and Charlotte Gomolak, "Schoolboy Football: National Scandal--Some Solutions," The Morning Call [Allentown, Pennsylvania], November, 1974, pp. 75-80.

of the 216 high schools in the state, the majority do not provide any care at all in regard to athletic injuries.⁴⁶

Dr. Robert Mack, the director of the Rainbow Sports Medicine Clinic in Cleveland, Ohio, says that athletes are short-changed medically at the high school level. He states that proper care at this level is almost nonexistent due to the shortage of certified trainers. Two-thirds of the injuries that accrue from athletics occur in practice.⁴⁷ Dr. Mack also indicates that, even if a doctor is at the game, he is going to miss 60 percent of the injuries.⁴⁸

Dr. K. Douglas Bowers, Jr., team physician for West Virginia University, conducted a study examining 138 sports-related injuries to determine how student athletes get to a physician capable of providing definite care. He found that a vast majority of student athletes were referred too late to provide maximum care and that 26 percent of the athletes treated incurred recovery times which were extended at least

⁴⁶Richard Redfearn, "Are High School Athletes Getting Good Health Care?", The Physician and Sports Medicine, III (August, 1975), 34-39.

⁴⁷Robert Leach, Robert Mack, and John Marshall, "Keeping the Winter Athlete Healthy," Medical World News (December, 1974), 45.

⁴⁸Leach, Mack, and Marshall, p. 45.

thirty days due to delays in seeking the necessary medical help.⁴⁹

Dr. Robert Murphy, Ohio State University's team physician, suggests that the athletic trainer is the key to an athletic medical staff. He says, "You can have the best team doctors in the world, but if you have a poor trainer, you will have a poor program."⁵⁰

James Kelly and Sayers Miller revealed that coaches, physical educators, and trainers who were uncertified did not possess adequate knowledge or skills to make a judgment of the severity of an injury or to administer proper care.⁵¹

James A. Michener, author of Sports in America, states that Dr. James Nicholas who serves as orthopedist for the New York Jets estimates that for young people under the age of fifteen who participate in the normal American sports their parents can anticipate one accident each year for every three players.⁵² Michener also cites cases of

⁴⁹Douglas K. Bowers, Jr., "Young Athletes Enduring Alarming Treatment Delays," The Physician and Sports Medicine, IV (October, 1976), 57-59.

⁵⁰Will Shipira, "At Ohio State It's Dr. Murphy's Law," The Physician and Sports Medicine, II (November, 1974), 77.

⁵¹James Kelly and Sayers Miller, "The Need for a Certified Athletic Trainer in the Junior and Senior High Schools," The Journal of the National Athletic Trainers Association, XI (Winter, 1976), 180-183.

⁵²James A. Michener, Sports in America (Greenwich, Connecticut: Fawcett Publications, 1976), pp. 112-113.

athletic injuries while working on his publication. Some of these cases can be seen in Appendix D.⁵³

Michener refers to a summary which appeared in the Encyclopedia of Sports Sciences and Medicine in 1971. The editors reported that, in a period from 1931 to 1965, a total of 642 fatalities occurred which could be attributed to football. Of these, 348 were high school players, 54 were college players, 72 were professionals and semi-professionals, and one was an official who was struck fatally while refereeing.⁵⁴ In another study made by the National Collegiate Athletic Association (N.C.A.A.), it was reported that in a period from 1931 to 1973 (excluding 1942 when no study was made) a total of 795 fatalities occurred which were attributable directly to football, plus another 384 relating indirectly.⁵⁵

In the fall of 1974, a television network carried a show relating to football injuries in high school and made the documented statement that, out of 100 boys who play the game in high school, 86 could expect to sustain at least one injury.⁵⁶

⁵³Michener, pp. 112-113.

⁵⁴Michener, p. 113.

⁵⁵Michener, p. 113.

⁵⁶Michener, p. 113.

In a study mandated by Congress in the Educational Assistance Amendment of 1974, Athletic Injuries and Deaths in Secondary Schools and Colleges, 1975-76, and directed by Robert Calvert, Jr., Assistant Director of Health, Education, and Welfare, 2,500 secondary schools and 1,300 colleges surveyed were asked to report the persons responsible for emergency care concerning sports-related injuries. Information was gathered on two types of athletic trainers, those with certified or associate membership status from the National Athletic Trainers Association (N.A.T.A.), plus all others. Combining types, the percentage of institutions with a trainer is as follows:

Public secondary schools	10.9 percent
Private secondary schools	15.4 percent
Two-year colleges	16.1 percent
Four-year colleges and universities	40.2 percent

It should also be noted that only 5 percent of the secondary school and 7 percent of the two-year college and four-year college trainers were accredited by the N.A.T.A.⁵⁷

In the February 25, 1979, release of HEW News, Joseph A. Califano, Jr., the Secretary of Health, Education, and Welfare, submitted a summary of the study to Congress. One interesting fact that prevailed in the study was that there were more than one million injuries in

⁵⁷Robert Calvert, Jr., Athletic Injuries and Deaths in Secondary Schools and Colleges, 1975-76 (A Report on the Survey Mandated by Section 826 of Public Law 93-380 (Washington: Government Printing Office, 1975), p. 7.

in American secondary schools and college athletic programs during the 1975-76 school year.⁵⁸

Other results of the study are as follow:

--Approximately 4.1 million men and 1.6 million women took part in varsity high school and college sports;

--About 3.3 million men and 1.8 million women were enrolled in intramural sports activities;

--Nearly 6 million men and 5.7 million women were enrolled in physical education classes.⁵⁹

The report also indicated that more than 100,000 of the one million injuries were classified as major, sidelining the participants for more than twenty days. Approximately 700,000 injuries were classified as a minor, causing the injured person to drop out of athletic activity from one to twenty days. Another 225,000 injuries which occurred in physical education programs were not classified by severity. Varsity football accounted for about 325,000 of the total injuries. Out of the 3,800 schools surveyed, there were fourteen deaths with as many in high school sports as in college sports. All but one of the deaths involved males. Four deaths resulted from tackle football, four from other contact sports, three from non-contact sports, and three from physical education programs.⁶⁰

⁵⁸Joseph A. Califano, Jr., HEW News, February 25, 1979, p. 1.

⁵⁹Califano, pp. 1-2.

⁶⁰Califano, p. 3.

It should be noted that the rate of injuries in tackle football is 280 per 1,000 participants, four times higher than in non-contact sports. Injury rates in other contact sports were 74 per 1,000 for men and 54 per 1,000 for women. Women comprise 28.7 percent of varsity athletic participants and 15.9 percent of the injuries.⁶¹

Regarding necessary care and treatment of athletic injuries, 96 percent of the high schools and colleges surveyed have someone responsible. Approximately 80 percent of the injuries to men and 77 percent to women occurred when someone was available. In most cases, the care was provided by a coach or other staff member and not by an athletic trainer.⁶²

Athletic trainers were found in about 40 percent of the secondary schools and 80 percent of the four-year colleges with tackle football programs.⁶³ It may be profitable to note that this study was conducted by the National Center for Educational Statistics in cooperation with the National Athletics Injury/Illness Reporting Service (NAIRS) at Pennsylvania State University.

⁶¹Califano, p. 3.

⁶²Califano, pp. 3-4.

⁶³Califano, pp. 3-4.

N.A.T.A. GUIDELINES FOR CERTIFICATION

William Douglas, Associate Professor and Chairperson of the Department of Professional Physical Education at West Virginia University, alleges that, for a certification program to be approved, it is necessary to conduct a needs assessment, develop curricular objectives, select activities designed to achieve the competencies, and evaluate faculty, facilities, and equipment. At West Virginia University, the certification requirements as set up by the N.A.T.A. are: forty-seven hours in general studies which include humanities, science (biology required), math, social studies, and physical education; twenty-four hours in professional studies which include courses in curriculum, educational psychology, and student teaching; thirty to forty-eight hours in subject specialization--in this category students will complete the requirements necessary for teacher certification in grades K-12 or 7-12; and thirty hours in athletic training, consisting of courses in basic and advanced athletic training, physiology, anatomy, physiology of exercise, adaptive and corrective physical education, first aid, and personal health.⁶⁴ Schwank and

⁶⁴William Douglas, "Professional Preparation in Athletic Training: An Experimental Curriculum," Journal of Physical Education and Recreation, XLVII (May, 1976), 40.

Miller recommend courses in General Physics, Pharmacology, Histology, and Pathology.⁶⁵

According to the National Athletic Trainers Association, there are general guidelines provided for those colleges and universities interested in developing and implementing an approved athletic training certification program. Those guidelines are as follow: (a) the institution contemplating the development of such a program should recognize and verify its need and base that need in part by a survey of local and regional school administrators, personnel directors, and other potential employers in an attempt to determine receptivity to employment of the program graduates; (b) the institution should make an assessment of available and needed resources; (c) the institution must appoint a program director; (d) the college or university must identify course work and clinical experience requirements; (e) the proposed athletic training education program must receive required departmental, college, or university acceptance and approval as an official field of study before submission of the program for N.A.T.A. approval; (f) all aspects of the proposed athletic training education program must have been fully implemented for at least two full academic years before final N.A.T.A. approval can be granted, and all required courses must have

⁶⁵Schwank and Miller, p. 42.

been taught at least once prior to final N.A.T.A. approval of the program; and (g) N.A.T.A. evaluation of the proposed athletic training education program can be initiated only by written request of the chief administrator of the department, school, or college in which the program is housed or by an officially designated representative.⁶⁶

According to the National Athletic Trainers Association's revised brochure, a person wishing to become certified by this organization must meet the requirements in one of the following sections, I, II, III, or IV. Qualification in more than one section is not required.⁶⁷

Section I. Students who have graduated from an approved undergraduate or graduate program, who have met the following criteria.

1. Completion of the N.A.T.A. approved athletic training curriculum requirements, and proof of a

⁶⁶Professional Education Committee, National Athletic Trainers Association, "Guidelines for Development and Implementation of N.A.T.A. Approved Undergraduate Athletic Training Education Program," February, 1979, pp. 1-4.

⁶⁷National Athletic Trainers Association, National Athletic Trainers Association Procedures for Certification (Valparaiso, Indiana: The National Athletic Trainers Association, Rev. July, 1978). (Brochure)

- Bachelor's degree from an accredited college or university.
2. Have spent a minimum of 800 clock hours over a minimum of two (2) years and not more than four (4) years under the direct supervision of N.A.T.A. approved clinical instructors. No more than 300 clock hours can be counted in any one year.
 3. Presentation of a Competency Evaluation Check List from a certified athletic trainer.
 4. Proof of one (1) year of continuous Associate or Student membership in N.A.T.A. immediately prior to application for certification.
 5. Proof of certification in Standard First Aid and CPR (Basic Rescuer) (or equivalent).
 6. Pass an examination which includes basic principles of athletic training. (N.A.T.A. Certification Examination).

A person who is once certified under these procedures remains certified as long as he/she meets the minimum requirements for continuing professional education as defined by the Professional Education Committee as approved by the Board of Directors and only as long as such requirement is met.

Section II. Apprenticeship-Students of Athletic

Training may qualify for certification by:

1. On the job training (minimum 1800 hours) over a minimum of two (2) years under the direct supervision of a certified N.A.T.A. member.
2. Proof of a Bachelor's degree from an accredited college or university.
3. Presentation of a Competency Evaluation Check List by his/her N.A.T.A. immediate supervisor.
4. Presentation of a letter of recommendation from an N.A.T.A. immediate supervisor.
5. Presentation of a letter of recommendation by his/her acting team physician.
6. Proof of one (1) year of continuous Associate or Student membership in N.A.T.A. immediately prior to application for certification.
7. Proof of current certification in Standard First Aid and CPR (Basic Rescuer) (or equivalent).
8. Pass an examination which includes basic principles of athletic training. (N.A.T.A. Certification Examination).

Section III. Special Consideration--Athletic Trainers

Actively Engaged within the Profession--

This section deals with athletic trainers actively engaged within the profession but not yet certified.

The N.A.T.A. definition of "actively engaged" is as follows: A person who is on a salary basis (no fee) employed by an educational institution, professional athletic organization, or other bona fide athletic organization for the duration of the institution's school year or for the length of the athletic organization's season and who performs the duties of athletic trainer as a major responsibility of his/her employment; or whose responsibility is the teaching in an N.A.T.A. approved athletic training curriculum is actively engaged in athletic training.

A person may be granted certification by special consideration by:

1. Proof of five (5) years of athletic training experience, after college graduation on the undergraduate level, provided that it would meet the minimum of one of the following requirements:
 - (a) graduate of an N.A.T.A. approved faculty-trainer education program;
 - (b) a minimum of one (1) year apprenticeship (800 hours) directly under a certified athletic trainer; or
 - (c) providing proof or essentially equivalent academic course work requirements to that of an N.A.T.A. approved curriculum graduate. (If this method is selected, the applicant must submit his/her academic transcripts a minimum of 12 months prior to the anticipated date of examination for evaluation and approval).
2. Proof of graduation from an accredited four year college or university.
3. Presentation of a Competency Evaluation Check List from an N.A.T.A. certified athletic trainer.
4. Presentation of a letter of recommendation from an N.A.T.A. certified athletic trainer.
5. Presentation of a letter of recommendation by his/her acting team physician.

6. Proof of one (1) year of continuous Associate membership in N.A.T.A. immediately prior to application for certification.
7. Proof of current certification in Standard First Aid and CPR (Basic Rescuer) (or equivalent).
8. Pass an examination which includes basic principles of athletic training. (N.A.T.A. Certification Examination).

Athletic Trainers actively engaged in the profession certified under this section remain certified as long as he or she meets the minimum continuing education requirement as described under Section I and only as long as such requirement is met.

Section IV. Physical Therapy Degree Graduate--Physical Therapy graduates may be awarded certification provided they meet the following requirements:

1. Have spent a minimum of 600 clock hours* over a minimum of two (2) years and not more than four years under the direct supervision of an actively engaged certified athletic trainer beyond that as a student athletic trainer on the secondary school level. No more than 300 clock hours can be counted in any one year.
2. Proof of a Bachelor's degree from an accredited college or university.
3. Presentation of a Competency Evaluation Check List from a certified athletic trainer.
4. Presentation of a letter of recommendation from an N.A.T.A. certified athletic trainer.
5. Presentation of a letter of recommendation by his/her acting team physician.
6. Proof of one (1) year of continuous Associate or Student membership in N.A.T.A. immediately prior to application for certification.
7. Proof of current certification in Standard First Aid and CPR (Basic Rescuer) (or equivalent).

*Refer to the N.A.T.A. Board of Certification Competency Evaluation Check List for Athletic Training Techniques with major emphasis on Sections I, II, IV, and V.

8. Pass an examination which includes basic principles of athletic training. (N.A.T.A. Certification Examination).

Athletic trainers certified under Section IV shall remain certified as long as he/she meets the continuing education requirements as described under Section I only as long as such requirement is met.⁶⁸

For a person to become certified by the National Athletic Trainers Association, it is necessary that he/she comply with one of the forementioned sections. The criteria listed under the four subdivisions is self-explanatory. The N.A.T.A. has also developed continuing education requirements that must be adhered to for an athletic trainer to retain a status of "associate or certified member."

CONTINUING EDUCATION REQUIREMENTS

In a report sent to all certified athletic trainers, Jack Redgren, Sub-Committee on Continuing Education, states: "Continuing Education will go into effect January 1, 1979."⁶⁹ A certified member must earn a total of 6.0 Continuing Education Units (C.E.U.'s) for the three-year period beginning January 1, 1979, and ending December 31, 1981. Another three-year period will begin January 1, 1982. It should be noted that there is no requirement for a single

⁶⁸ National Athletic Trainers Association.

⁶⁹ Jack Redgren, "Continuing Education," National Athletic Trainers Association (Greenville, North Carolina: January 1, 1979), letterhead. (Mimeographed)

year, only 6.0 C.E.U.'s for the three-year period, and anyone becoming certified during a three-year period will have his/her continuing education requirements prorated for the remainder of that period.⁷⁰

The report also indicates that, once a person becomes a certified athletic trainer (A.T.C.), he/she will remain so as long as the minimum continuing education requirements are met. All associate members must meet the same requirements as those of certified members to be eligible for continuance of associate membership status (implementation will be delayed until January 1, 1982, as indicated by a Board of Directors meeting at Las Vegas, Nevada, June, 1978).⁷¹

The Professional Education Committee defines the Continuing Education Unit (C.E.U.) as "ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction" (10 contact hours = 1 C.E.U.). For an associate member or a certified member to maintain certification, a minimum requirement of 6 C.E.U.'s must be accumulated every three years.⁷²

⁷⁰Redgren, p. 1.

⁷¹Redgren, p. 1.

⁷²Redgren, p. 1.

The committee also advocated that thirty days after completion a certified or associate member is responsible for sending to the N.A.T.A. national office proof of fulfillment of any C.E.U.'s and activities to be used in updating his/her records.⁷³

Certified trainers who do not meet the accumulated requirement of 6.0 C.E.U.'s every three calendar years will have his/her certification suspended. Any action taken by the membership committee affecting the status of an A.T.C. (Certified Athletic Trainer) relating to continuing education may be appealed to the sub-committee.⁷⁴

In accordance with such action of the Board of Directors, the Professional Education Committee has constructed definitions of what is accepted as continuing education units for certified and associate members of the N.A.T.A.⁷⁵ (See Appendix E.)

CHANGES IN N.A.T.A. GUIDELINES

In a manual prepared by the N.A.T.A. Professional Education Committee Regarding Guidelines for Development and Implementation of N.A.T.A. Approved Undergraduate Athletic Training Education Programs, February, 1979, the following

⁷³Redgren, p. 1.

⁷⁴Redgren, p. 1.

⁷⁵Redgren, pp. 2-4.

changes were noted: Undergraduate athletic training education programs must insure the availability of all course work which provides its students with the opportunity to meet requirements for a teaching certificate; the undergraduate athletic training education program shall include a minimum of 800 clock hours instead of the original 600 of clinical experience under the supervision of a qualified clinical instructor; the 800 clock hours of clinical experience can also be satisfied by working intercollegiate athletic team practice session games; and by supervising intramurals.⁷⁶

GOVERNMENT LEGISLATION

Ronald V. Dellums, Congressman of the eighth district of California, introduced two bills of legislation which were referred to the Committee on Education and Labor at the First Session of the 94th Congress on January 14, 1975. One bill, H.R. 347, cited as the "Athletic Safety Act," was designed to provide the protection of the safety and health standards under the Occupational Safety and Health Act of 1970 for individuals participating in athletic contests

⁷⁶ National Athletic Trainers Association Professional Education Committee, Guidelines for Development and Implementation of N.A.T.A. Approved Undergraduate Athletic Training Education Programs (Pennsylvania State University, University Park, Pennsylvania: The National Athletic Trainers Association, February, 1979).

between secondary schools or between institutions of higher education.⁷⁷ The other bill, H.R. 348, was cited as the "Athletic Care Act," and required educational institutions engaged in interscholastic athletic competition to employ certified athletic trainers.⁷⁸ It should be noted that these measures have been considered by the United States Congress, in one form or another, since 1973.⁷⁹

It was during the 93rd Congress that a bill (Dellums Bill H.R. 348) was introduced requiring that schools and colleges have on their staffs a certified athletic trainer as a means of reducing the number of injuries caused by sports activities and to minimize their long-term effects. It should be noted that this bill did not reach the floor.⁸⁰

FUTURE OF THE DELLUMS BILL

In a telephone conversation on July 20, 1979, with Congressman Ronald V. Dellums regarding the bill, H.R. 347,

⁷⁷U.S. Congress, House, Committee on Education and Labor, Amendment of Occupational Safety and Health Act of 1970, 94th Cong., 1st Sess., January 14, 1975, H. R. 347 (Washington: Government Printing Office, 1975).

⁷⁸U.S. Congress, House, Committee on Education and Labor, The Athletic Care Act, 94th Cong., 1st Sess., January 14, 1975, H.R. 348 (Washington: Government Printing Office, 1975).

⁷⁹Telephone conversation between Ronald V. Dellums and the writer, July 20, 1979.

⁸⁰Calvert, p. 1.

"The Athletic Safety Act," and the bill, H.R. 348, "The Athletic Care Act,"* he stated:

Each of these pieces of legislation is now undergoing revision by the staff of the Legislative Counsel of the House of Representatives. I am hoping to re-introduce the revised bills early in the second sessions of the 96th Congress, probably next spring.⁸¹

SUMMARY

As the athletic training profession nears the next decade, one can perceive that it has stood the test of time. Unlike athletic trainers of old, today's trainer is a reputable, well qualified individual with a vast background in sports medicine. This background usually comes from an institution that offers an approved N.A.T.A. curriculum.

With more emphasis being placed on sports participation, one can also verify the need for certified personnel due to the ever-increasing number of sports-related injuries that occur in the high schools and colleges and universities in our country each year. The National Athletic Trainers Association concludes that, out

⁸¹Telephone conversation between Ronald V. Dellums and the writer, July 20, 1979.

*Since completion of this study, the Dellums Bill (H.R. Bill 348, "The Athletic Care Act") has been found to be unconstitutional.

of five southeastern states, namely, Kentucky, Alabama, Georgia, Mississippi, and Tennessee, only two, Kentucky and Mississippi, offer an undergraduate certification program. The Association also verifies that only fifty-five institutions of higher learning in our nation propose such a curriculum. What is even more alarming is the fact that the state of Tennessee has only one certified athletic trainer in its high schools.

With the initiation of Continuing Education Units (C.E.U.'s), as designated by the Professional Education Committee to go into effect on January 1, 1979, it will help insure that the certified athletic trainer will be a competent, well qualified individual who will give athletes proper treatment and care of injuries that might accrue from sports.

If certain government legislation such as the Dellums Bill is passed in the near future, those high schools, colleges, and universities in the United States that field interscholastic and intercollegiate athletic teams who do not have a certified athletic trainer on their staffs may be required to employ one. It seems from the review of related literature that the most logical way to help meet the need of supply and demand is through N.A.T.A. certification.

Chapter 3

METHODS AND PROCEDURES

Color-coded questionnaires, gold, white, and blue, were utilized to collect and to ensure the proper separation of data used in this study. Three populations were sampled: senior high school principals, athletic coaches, and Middle Tennessee State University freshman and sophomore students.

In this chapter, the writer identifies the techniques used to administer the instrument and to collect the data for this study. This unit has been divided into the following categories: survey samples; procedures for administering the questionnaires; and statistical procedures.

SURVEY SAMPLES

High School Principals

Senior high school principals within a fifty-mile radius of Middle Tennessee State University were chosen to participate in this study. A state map of Tennessee with its counties was acquired by the investigator from the Middle Tennessee State University geography department, and

a fifty-mile radius from Murfreesboro was drawn. Ninety-three high schools with grades nine through twelve and ten through twelve were considered for the study. It should be noted that any county and its prospective senior high schools within or on the boundary line were included (see Appendix F). The principals of each high school were mailed a sixteen-item questionnaire. The map of Tennessee appears in Appendix G, and the questionnaire designed for high school principals appears in Appendix H.

The investigator obtained permission to administer the questionnaire by contacting the superintendents or principals of prospective school systems or high schools by telephone.

Athletic Coaches

Athletic coaches, high school and college, who attended the Tennessee Secondary School Athletic Association (T.S.S.A.A.) on July 25-27, 1979, Middle Tennessee State University, Murphy Athletic Center, were selected to participate in the study. The investigator administered a sixteen-item questionnaire to each coach who registered for the clinic. For a copy of the coaches' questionnaire, see Appendix I.

Undergraduate Students

Middle Tennessee State University freshman and sophomore students who registered for university physical

education activity courses during the fall semester of 1979 were chosen to participate in the study.

The activities used were randomly selected from the fall class schedule. The investigator gave each course offered in the prospectus a number, placed the numbers in a hat, and drew ten. See Appendix J for a copy of the student questionnaire.

PROCEDURES FOR ADMINISTERING THE QUESTIONNAIRES

Principals' Questionnaire

The principals' questionnaire was designed to serve a threefold purpose: (1) to assess a need for certified athletic trainers in senior high schools, especially in the middle Tennessee area, (2) to be beneficial to the National Athletic Trainers Association in developing a certification program at Middle Tennessee State University that will best meet the needs of the state, region, and surrounding communities, and (3) to help determine employment opportunities for program graduates.

Administrative Procedures

A sixteen-item questionnaire was mailed to ninety-three senior high school principals within the middle Tennessee area. A face letter was attached to the questionnaire explaining the study's purpose and giving a brief definition of a certified athletic trainer. See

Appendix K for a copy of the face letter. Included with the face letter was a personal note emphasizing that athletic coaches had given their opinions to an identical questionnaire. The memorandum also requested that each principal personally respond to the items listed. A stamped, self-addressed, return envelope was also included.

The principals' questionnaire was first mailed on September 20, 1979. Three weeks later, a second questionnaire along with a follow-up letter was mailed to those principals not responding to the initial one. See Appendix L for a copy of the follow-up letter. A final tally of the ninety-three senior high school principals showed sixty-nine replied, yielding a 74.2 percent return rate.

Athletic Coaches' Questionnaire

The purposes of the coaches' questionnaire were:

(1) to establish whether there is a need for certified athletic trainers in senior high schools, especially in the middle Tennessee area, (2) to present evidence that would be beneficial to the National Athletic Trainers Association in establishing a certification program for athletic trainers at Middle Tennessee State University, and (3) to help determine employment opportunities for program graduates.

Administrative Procedures

The investigator administered the coaches' questionnaire during the Tennessee Secondary School Athletic

Association (T.S.S.A.A.) coaching clinic held at the Middle Tennessee State University Murphy Athletic Center on July 25-27, 1979.

The investigator and two trained helpers administered the questionnaire to the 559 coaches. The aides were stationed at the Coaches' Questionnaire table. Their main duties were to distribute, to help administer, to collect, and to count questionnaires.

The investigator's main responsibility was to ask each coach who registered to complete a questionnaire. A brief explanation of the purpose of the study was given. The coach was handed a questionnaire and asked to complete it at the Coaches' Questionnaire table. Next, the questionnaires were collected and tallied. It should be noted that those coaches requesting a questionnaire to be returned at a later time were given one.

The investigator gathered the data to be analyzed and checked with the workers at the registration tables to determine the total number of registrants. It should be noted that all 829 people who registered for the clinic were not athletic coaches. Any person who desired to attend or was involved with the clinic in any capacity was required to register. The number of coaches who completed and returned a usable questionnaire was tallied against the total number of registrants and a percentage derived. Out of the 829

registrants, 559 coaches completed and returned applicable questionnaires for a percentage of 67.4.

Students' Questionnaire

The purpose of the students' questionnaire was four-fold: (1) it was designed to determine whether a student is interested in athletic training as a primary or secondary career; (2) it was designed to determine how many of the freshman and sophomore students surveyed would enroll in an athletic training certification program if offered by Middle Tennessee State University next year; (3) it was devised to determine if the students surveyed knew of someone interested in enrolling in an athletic training certification program; and (4) it was designed to be beneficial to the National Athletic Trainers Association in determining a need for such a program.

After final approval, the investigator learned from the Dean of Admissions Office that the total number of full-time freshman and sophomore students enrolled during the fall semester of 1979 was 4,749. The questionnaire was administered to 161 full-time freshman and sophomore students, amounting to 3.4 percent of the total population.

Administrative Procedures

The investigator administered the students' questionnaire to 161 Middle Tennessee State University

freshman and sophomore students enrolled in university physical education activity classes. The ten activity courses used in the study were selected at random from the 1979 fall class schedule prospectus. The names of the classes selected at random were as follow:

1. Beginning Tennis
2. Bowling
3. Beginning Badminton
4. Beginning Archery
5. Racquetball
6. Racquetball
7. Basic River Canoeing
8. Intermediate Ballet
9. Rollerskating
10. Golf.

Before the investigator administered the eight-item questionnaire at the beginning of each class, a brief explanation of the purpose of the questionnaire along with a concise definition of a certified athletic trainer were given. The students were asked to answer each question to the best of their ability.

STATISTICAL PROCEDURES

In view of the purpose of this study, the term "descriptive statistics" needs to be interpreted. Selltiz, Wrightsman, and Cook, in their book Research Methods in Social Relations, state:

The term descriptive statistics is often applied to characterize the methods employed in summarizing the obtained data, and the term inferential statistics or

sampling statistics to characterize the methods utilized in making and evaluating generalizations from the data.¹

The main purpose of the data collected was to verify a need for an athletic training certification program at Middle Tennessee State University by administering questionnaires to senior high school principals, athletic coaches, and Middle Tennessee State University freshman and sophomore students. The data were not designed to show any specific relationships between those populations; therefore, the statistical procedures utilized in this study were to put the collected data into frequencies and derive a percentage. Engelhart states that percentages and differences in percentages are frequently used in generalizing to the populations sampled and that the use of frequencies and percentages or proportions are utilized in obtaining indications of the strengths of relationships between nominal variables or between such variables as test scores.³

¹Max D. Engelhart, Methods of Educational Research (Chicago: Rand McNally and Company, 1972), pp. 194-195.

Chapter 4

ANALYSIS OF DATA

The data were obtained from the questionnaires given to the senior high school principals, athletic coaches, and freshman and sophomore students at Middle Tennessee State University.

PURPOSE OF THE STUDY

The purpose of the study, as previously stated, was to assess a need for certified athletic trainers in senior high schools, especially in the middle Tennessee area, and to present meaningful evidence to the National Athletic Trainers Association whether or not it would be beneficial to establish an athletic training certification program at Middle Tennessee State University.

STATISTICAL PROCEDURES USED

The primary statistical procedure utilized for this study was to group the collected data into frequencies and derive a percentage. Max Englehart, in his book, states:

With nominal data such as counts of cases falling in specified categories, for example, counts of heads and tails in tossing coins, or numbers of students responding "yes", "no", or "uncertain" to an attitude item, use may be made of the numbers or frequencies of observation, or these may be changed to percentages or proportions.¹

Certain items on the principals' and coaches' questionnaire (1, 2, 3, 4, 5, 7, 8, and 16) and certain items (4, 5, and 6) on the students' questionnaire were of crucial importance. To measure one's confidence in these sample point estimates (i.e., the sample proportions), a confidence interval at the .50 level of confidence was constructed to estimate the opinions of the total population for the sample. The following formula was used: $Sp = \sqrt{\frac{Pq}{N}}$.² The meaning of the symbols used in the formula is as follows:

P - population proportion
 p - sample proportion
 q - 1-p
 N - sample
 Sp - estimate of the standard error of a proportion.

It was also of interest to explore whether there was a significant difference between the proportions of "yes"

¹Max D. Engelhart, Methods of Educational Research (Chicago: Rand McNally and Company, 1972), p. 262.

²George A. Ferguson, Statistical Analysis in Psychology and Education (3rd ed.; St. Louis: McGraw-Hill Book Company, 1971), p. 143.

responses on items 4, 8, and 16 between the principals and coaches. The following formulas were used:

$$1. \quad P = \frac{f_1 + f_2}{N_1 N_2}$$

$$2. \quad Sp_1 - P_2 = \sqrt{P_q \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}$$

$$3. \quad z = \frac{P_1 - P_2}{Sp_1 - P_2} \cdot 3$$

The difference of proportions was analyzed at the .01 level of significance to determine if there were differences of opinions to answers given on specific categories.

Since senior high school principals and athletic coaches were administered identical questionnaires, the analyses of the data are presented in the following order: Principals' and Coaches' Questionnaire Results, Students' Questionnaire Results, and concluded by a Summary. Tables of data are constructed, presented, and interpreted. For a complete overview of the analyzed data of the three questionnaires, see Appendix M.

HIGH SCHOOL PRINCIPALS' AND ATHLETIC COACHES' QUESTIONNAIRE RESULTS

Ninety-three senior high school principals within a fifty-mile radius of Middle Tennessee State University and five hundred fifty-nine high school and college coaches were

³Ferguson, p. 161.

administered identical sixteen-item questionnaires to establish whether their views indicated a need for certified athletic trainers in area high schools. To best support the purpose of this study, the investigator reviewed the questionnaire items in the following order:

Item 1. Does your school employ an athletic trainer certified by the National Athletic Trainers Association (N.A.T.A.)?

Of the 589 coaches, 82 responded to the item by answering "yes" for 14.6 percent. Four hundred seventy-five answered "no" for 84.9 percent. Two did not respond for .36 percent. All 69 principals answered "no" for 100.00 percent (see Table 1). The 50 percent confidence limits for the "no" category for the coaches are 84 percent to 86 percent. The confidence interval was not calculated for the principals because of their 100.00 percent "no" response.

Table 1
Number and Percentages of Schools that
Employ N.A.T.A. Certified
Athletic Trainers

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	82	475	14.6	84.9
Principals	0	69	00.0	100.0

Item 5. Do you believe there is a general need for certified athletic trainers at the senior high school level?

Five hundred forty-nine coaches responded by answering "yes" for 97.5 percent; 10 coaches replied "no" for 1.79 percent. Four coaches did not answer for .71 percent. Fifty-two principals answered "yes" for 75.3 percent; 15 answered "no" for 21.7 percent; and two did not respond for 2.90 percent (see Table 2).

Table 2

A General Need for Certified Athletic Trainers at the Senior High School Level Based on Opinions of the Principals and Athletic Coaches Surveyed

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	545	10	97.5	1.75
Principals	52	15	75.3	21.7

Confidence intervals were computed for the "yes" category for both coaches and principals. The results are as follow: the confidence interval for the coaches computed at the .50 level of confidence concludes that there is a 50 percent chance that between 97 and 98 percent of the total population (i.e., for all schools in the target area) of coaches would agree that there is a need for certified

athletic trainers at the senior high school level. There would be a 50 percent chance that from 72 to 79 percent of the total population of principals, if surveyed, would affirm that there is a general need for certified athletic trainers at the senior high school level.

Item 7. Do you believe that a certification program for athletic trainers at a state university is needed and would be beneficial to your region?

Of the 559 coaches who completed Item 7, 549 answered "yes" for 98.2 percent; 5 answered "no" for .89 percent; and 5 coaches did not respond for .89 percent. Fifty-six principals answered "yes" for 81.16 percent; 10 replied "no" for 14.49 percent; and three did not answer the item for 4.35 percent (see Table 3).

Table 3

A Need for a Certified Athletic Training
Program at a State University Based
on the Populations Surveyed

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	549	5	98.2	.89
Principals	56	10	81.16	14.49

Confidence intervals were calculated on the "yes" category. For athletic coaches, it can be predicted at the

.50 confidence level that between 98 and 99 percent of the total population of coaches would conclude that there would be a need for a certified athletic training program at a state university. It can be stated that there is a 50 percent chance that from 78 to 84 percent of the total population of principals in Tennessee, if surveyed, would agree that an athletic training program at a state university would be beneficial.

Item 4. If you had a vacancy on your faculty, would you recommend hiring a certified athletic trainer who is qualified to teach various subject areas, such as Science, English, Chemistry, Mathematics, Physical Education, etc.?

Table 4 indicates that 488 of the 559 coaches answered "yes" for 87.3 percent; 17 replied "no" for 3.04 percent; and 52 coaches checked "undecided" for 9.3 percent. Two coaches did not respond to Item 4 for .36 percent. Fifty senior high school principals answered "yes" to Item 4 for 72.46 percent; 7 responded "no" for 10.14 percent; 11 were "undecided" for 15.94 percent, and 1 did not respond for 1.46 percent.

Confidence intervals were computed on the "yes" category for both coaches and principals. For coaches, one can estimate that there would be a 50 percent chance that from 86 to 88 percent of the total population of coaches, if surveyed, would recommend the hiring of a certified athletic

trainer, while 69 to 76 percent of the total population of the principals would.

Table 4
Percentage of Coaches and Principals Who
Would Recommend Hiring a Certified
Athletic Trainer

	Frequencies			Percentages		
	Yes	No	Und.	Yes	No	Und.
Coaches	488	17	52	87.3	3.04	9.3
Principals	50	7	11	72.4	10.14	15.94

A test of the significance of the difference between the proportions of the "yes" category of athletic coaches and high school principals was calculated to determine whether there would be a significant difference in their opinions. The obtained z value was 3.16 which is significant at the .01 level.

Item 8. Is there anyone presently on your faculty who would be interested in obtaining athletic training certification?

Of the 559 coaches, 313 responded "yes" for 55.9 percent; 169 responded "no" for 30.2 percent; and 77 did not respond for 13.7 percent. Twenty-three principals responded "yes" for 33.3 percent; 28 replied "no" for 40.58 percent; and 18 did not respond for 26.09 percent (see Table 5).

Table 5
Faculty Members Who Would Be Interested in
Obtaining Athletic Training
Certification

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	313	169	55.9	30.2
Principals	23	28	33.3	40.5

Confidence intervals were computed on the "yes" category for coaches and principals. There is a 50 percent chance that from 55 to 57 percent of the total population of coaches know of a faculty member interested in obtaining athletic training certification. Thirty to 38 percent of the total population of the principals may be assessed to know, at the 50 percent confidence level, of someone on their faculty interested in obtaining athletic training certification.

A test of significance of the difference of the proportions between coaches and principals responding "yes" was found to be significant at the .01 level ($z = 3.75$).

Item 16. Do you know of any graduating students who might be interested in becoming certified trainers?

Thirty-seven percent of the coaches (209) responded "yes"; 59.2 percent (331) responded "no"; and 3.4 percent (19) did not respond. Thirteen of the 69 principals

answered "yes" for 18.8 percent; 78.2 percent (54) checked "no"; and 2.9 percent (2) did not respond (see Table 6).

Table 6
Graduating Seniors Interested in Becoming
Certified Athletic Trainers

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	209	331	37.4	59.2
Principals	13	54	18.8	78.2

Confidence intervals were computed on the "yes" category. At the .50 confidence level, 36 to 39 percent of the total population of coaches would know such graduating seniors, while 16 to 22 percent of the total number of principals would know of graduating seniors who would be interested in becoming certified trainers.

A test of significance of the difference of the proportions between coaches and principals responding "yes" was found to be significant at the .01 level ($z = 3.04$).

Item 2. Is there a person or persons affiliated with your school who acts in the capacity of athletic trainer?

Three hundred sixty coaches responded "yes" for 64.4 percent; 198 responded "no" for 35.4 percent; and 1 coach did not respond for .18 percent. As for the principals, 43

responded "yes" for 62.3 percent; and 26 replied "no" for 37.6 percent (see Table 7).

Table 7
Number and Percentage of People Acting in
the Capacity of Athletic Trainer
According to the Populations
Surveyed

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	360	198	64.4	35.4
Principals	43	26	62.3	37.6

A confidence interval was computed on the "yes" category for coaches and principals. At the 50 percent level of confidence 60 to 65 percent of the total population of coaches would state that someone affiliated with their school acts in the capacity of an athletic trainer. If the total population of principals were surveyed, one could estimate at the 50 percent confidence level that 63 to 66 percent of the total number would agree that there was someone at their school acting in the capacity of an athletic trainer.

Item 2(A). If the answer is "yes," from the following list please check the most appropriate response(s).

- a. coach
- b. teacher
- c. paramedic
- d. team physician
- e. chiropractor
- f. certified athletic trainer
- g. other _____(please specify).

It is interesting to note that 55.8 percent of the coaches checked that a coach acted in the capacity of athletic trainer; 72.09 percent of the high school principals designated that a coach served as trainer. Approximately 19 (18.89) percent of the coaches checked that a team physician functioned in that capacity, while 25.08 percent of the principals reported that a team physician acted as such. It should be noted that 21.39 percent of the coaches replied that a certified athletic trainer acted as such, while 6.98 percent of the principals reported that a certified athletic trainer was affiliated with their school (see Table 8).

Item 3. Do you have a student trainer on your staff?

Forty-six percent of the coaches replied "yes"; 53.49 percent replied "no"; and 2 did not respond for .36 percent. Fifty-five percent of the principals acknowledged that the schools had a student trainer on their staffs (see Table 9).

Item 3(A). If the answer is "yes," what type of athletic trainer certification program has he/she completed?

Table 8
People Affiliated with High Schools Who
Act in the Capacity of an
Athletic Trainer

	Frequencies		Percentages	
	Coaches	Principals	Coaches	Principals
Coach	201	31	55.83	72.09
Teacher	26	5	7.22	11.63
Paramedic	11	1	3.06	2.33
Team Physician	68	11	18.89	25.58
Chiropractor	2	0	.01	.00
Certified Athletic Trainer	77	3	21.39	6.98
Other	44	0	12.22	.00

Table 9
Number and Percentage of Student Trainers
on Athletic Staffs of the Populations
Surveyed

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	258	299	46.15	53.49
Principals	38	31	55.07	44.93

- a. none
- b. Cramer Student Trainer Course
- c. National Athletic Trainers Association
Certification Program
- d. other _____ (please specify).

According to the 258 coaches who answered "yes" to Item 2, 58.13 percent of the student trainers had no type of training. Nearly 68 (67.82) percent had completed the Cramer Student Trainer Course. Over 30 (31.58) percent of the principals surveyed indicated that the student trainers at their schools had no training. Over 47 (47.37) percent of the principals, however, stated that their student trainers had completed the Cramer Student Trainer Course (see Table 10).

Table 10

Student Trainers Who Have Completed Some
Type of Athletic Trainer
Certification Program

	Frequencies		Percentages	
	Coaches	Principals	Coaches	Principals
None	150	12	42.30	31.58
Cramer	175	18	49.64	47.37
N.A.T.A.	15	1	4.17	2.63
Other	14	7	3.89	18.42

Item 9. Is there someone designated to provide any type of care and supervision concerning sports-related injuries at all athletic contests sponsored by your school?

The percentage of coaches who responded "never" was 11.45; 26.83 percent checked "occasionally"; 24.51 percent replied "frequently"; 35.60 percent checked "always"; and 1.61 percent of the coaches did not respond. As for the principals, 13.04 percent answered "never"; 18.84 percent checked "occasionally"; 27.54 percent replied "frequently"; 34.78 percent checked "always"; and 5.80 percent did not answer (see Table 11).

Table 11
Care Provided at all Athletic Contests,
According to the Populations
Surveyed

	Frequencies		Percentages	
	Coaches	Principals	Coaches	Principals
Never	64	9	11.45	13.04
Occasionally	150	13	26.83	18.84
Frequently	137	19	24.51	27.54
Always	199	24	35.60	34.78

Item 9(A). If the answer is "never," at which of the following athletic contests is someone available? In cases where a certified athletic trainer is not provided at all athletic contests, the respondents were asked to indicate which sport one was available.

- a. football
- b. basketball
- c. baseball
- d. wrestling
- e. tennis
- f. other _____ (please specify).

Football and basketball took preference over the other sports activities listed. Nearly 83 (82.81) percent of the coaches noted that someone was available at football games, while 14.06 percent answered basketball games. Approximately 89 (88.89) percent of the principals stated that there was someone designated to provide the needed care and supervision at football games, while 22.22 percent indicated that someone was available at basketball games (see Table 12).

Table 12

Athletic Activities in which Care and
Supervision of Athletic Injuries
are Provided

	Frequencies		Percentages	
	Coaches	Principals	Coaches	Principals
Football	53	8	82.81	88.89
Basketball	9	2	14.06	22.22
Baseball	2	0	3.12	0.00
Wrestling	3	0	4.69	0.00
Tennis	1	0	1.56	0.00
Other	5	1	7.81	11.11

Item 10. Is there someone at your school designated to provide any type of care and supervision concerning sports-related injuries at practice sessions?

Three hundred eighty-eight coaches responded "yes" for 69.41 percent, while 52 principals checked "yes" for 75.36 percent. Six coaches did not respond for 1.07 percent (see Table 13).

Table 13
Care and Supervision of Athletic Injuries
During Practice Sessions

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	388	165	69.41	29.52
Principals	52	17	75.36	24.64

Item 10(A). If the answer is "yes," indicate by position who is so designated:

- a. coach
- b. physician
- c. paramedic
- d. certified athletic trainer
- e. chiropractor
- f. other _____ (please specify).

The important fact to notice in Item 10(A) is that the coach is designated to provide the care and treatment of injuries during practice sessions 76.80 percent of the time, according to the coaches' poll. Principals replied that

coaches were responsible 90.38 percent of the time (see Table 14).

Table 14
Individuals Designated to Provide Care and
Treatment of Athletic Injuries at
Practice Sessions

	Frequencies		Percentages	
	Coaches	Principals	Coaches	Principals
Coach	298	47	76.80	90.38
Physician	28	0	7.22	0.00
Paramedic	7	0	1.80	0.00
Certified Athletic Trainer	71	1	18.30	1.92
Chiropractor	2	0	.52	0.00
Other	31	4	7.99	7.69

Item 11. In the event of an injury, who determines whether or not a player is able to return to competition?

More than 37 (37.39) percent of the coaches who responded to the item stated that they determined whether a player was able to return to athletic competition; 67.26 percent replied that a physician decided when a player was able to return. Two coaches did not respond for 1.07 percent. Over 43 (43.48) percent of the principals ascertained that the coach determined whether a player was

able to play, and 78.27 percent agreed that a physician gave final approval concerning such matters (see Table 15).

Table 15
Individuals Responsible for Determining
Whether an Athlete is Able to Return
to Athletic Competition

	Frequencies		Percentages	
	Coaches	Principals	Coaches	Principals
Coach	209	30	37.39	43.48
Physician	376	54	67.26	78.27
Paramedic	5	1	.89	1.45
Certified Athletic Trainer	58	0	10.38	0.00
Chiropractor	2	0	.36	0.00
Student Trainer	9	0	1.61	0.00
Other	3	1	.54	1.45

Item 14. Does your school have an intramural program needing the services of a certified athletic trainer?

Only 24.69 percent of the coaches responding answered "yes"; 72.09 percent replied "no"; and 18 did not respond for 3.22 percent. More than 23 (23.19) percent of the principals surveyed indicated that they had an intramural program that needed the services of a certified

athletic trainer, and one principal did not respond for .45 percent (see Table 16).

Table 16
Intramural Programs Needing the Services
of a Certified Athletic Trainer

	Frequencies		Percentages	
	Yes	No	Yes	No
Coaches	138	403	24.69	72.09
Principals	16	52	23.19	75.36

Item 15. Approximately how many injuries occur during a school year in the entire interscholastic athletic program?

The greatest number of athletic injuries, as indicated by both coaches and principals, occur within a range of 6 to 20 each year in the entire interscholastic athletic program (see Table 17).

Table 17

Number of Injuries that Occur Each Year
in Interscholastic Athletic Programs

	Frequencies		Percentages	
	Coaches	Principals	Coaches	Principals
1 to 5	60	10	10.73	14.49
6 to 10	128	17	22.90	24.64
11 to 15	116	17	20.75	24.64
16 to 20	151	15	27.01	21.74
Other	55	8	9.84	11.59

STUDENT QUESTIONNAIRE RESULTS

One hundred sixty-one Middle Tennessee State University freshmen and sophomores enrolled in university physical education activity courses during the fall semester, 1979, were administered an eight-item questionnaire to confirm their convictions concerning an athletic training certification program at Middle Tennessee State University. Confidence Intervals were computed on Items 4, 5, and 6 at the .50 percent level of confidence. To best substantiate the purpose of this study, the investigator examined the following questionnaire items.

Item 4. Would you consider athletic training as a primary career?

Nineteen students responded "yes" to Item 4 for 11.80 percent; 125 students replied "no" for 77.64 percent; and 17 students were "undecided" for 10.56 percent. A confidence interval was computed for the "yes" category at the .50 percent confidence level. One could state that there would be a 50 percent chance that, if the total population of freshman and sophomore students were surveyed, between 10 and 14 percent would consider athletic training as a primary career (see Table 18).

Table 18

Students Who Would Consider Athletic
Training as a Primary Career

	Frequencies	Percentages
Yes	19	11.80
No	125	77.64
Undecided	17	10.56

Item 5. Would you consider athletic training as a secondary career?

Forty-five of the 161 students surveyed responded "yes" to Item 5 for 27.95 percent; 104 students answered "no" for 55.28 percent; and 41 checked "undecided" for 25.46 percent. A confidence interval was computed for the "yes" category. It can be concluded there would be a 50 percent chance that 26 to 30 percent of the entire number of

freshman and sophomore students would consider athletic training as a secondary career. In view of the total population, which is 4,749 freshmen and sophomores, one can estimate that there would be a 50 percent chance that from 1,235 to 1,425 students would consider athletic training as a secondary career (see Table 19).

Table 19
Students Who Would Consider Athletic
Training as a Secondary Career

	Frequencies	Percentages
Yes	45	27.95
No	89	55.28
Undecided	27	16.77

Item 6. Next year, M.T.S.U. is offering a certification program in athletic training. Will you be interested in obtaining athletic training certification?

Of the 161 students surveyed, 16 answered "yes" for 9.94 percent; 104 said "no" for 64.60 percent; and 27 were "undecided" for 25.46 percent.

A confidence interval was computed for the "yes" category which indicated there would be a 50 percent chance that 8 to 12 percent of the total population of freshmen and sophomores would enroll in such a program if offered next year. Computing the information in terms of the number of

students who would enroll, one could estimate that 380 to 570 students would register (see Table 20).

Table 20
Frequencies and Percentages of Students
Who Would Enroll in an Athletic
Training Certification Program
at Middle Tennessee State
University

	Frequencies	Percentages
Yes	16	9.94
No	104	64.60
Undecided	27	25.46

SUMMARY

This study attempted to establish a need for certified athletic trainers in senior high schools, especially in the middle Tennessee area, by administering questionnaires to senior high school principals, athletic coaches, and freshman and sophomore students enrolled in ten randomly selected fall physical education activity courses at Middle Tennessee State University.

After the data were collected, they were tallied and frequencies and percentages were computed. Confidence intervals at the .50 level of confidence were computed on Items 1, 2, 4, 5, 7, and 16 of the coaches' and principals' questionnaire and Items 4, 5, and 6 of the students'

questionnaire. A test of the significance of the difference between the proportions was computed at the .01 level of significance on Items 4, 8, and 16 of the coaches' and principals' questionnaire.

Chapter 5

CONCLUSIONS, OBSERVATIONS, AND RECOMMENDATIONS

The purpose of this study was to assess a need for certified athletic trainers in senior high schools, especially in the middle Tennessee area, and to present conclusive evidence to the National Athletic Trainers Association that would be beneficial in establishing an athletic training certification program at Middle Tennessee State University.

Senior high school principals, athletic coaches, and freshman and sophomore students at Middle Tennessee State University were surveyed to explore their attitudes concerning this matter.

CONCLUSIONS

The findings of this study warranted the following major conclusions:

1. There is a definite need for certified athletic trainers in senior high schools. (See Tables 1 and 2.)

2. The majority of coaches and principals indicated a need for certified athletic trainers at the senior high school level. (See Table 2.)

3. The majority of coaches and principals indicated that an athletic training certification program was needed at a state university and would be beneficial to the region. (See Table 3.)

4. The majority of coaches and principals would recommend the hiring of a certified athletic trainer if a vacancy were presented. (See Table 4.)

5. There is a substantial number of high school faculty members who would be interested in obtaining athletic training certification. (See Table 5.)

6. There are graduating senior high school students in the state who are interested in obtaining athletic training certification. (See Table 6.)

7. Due to the lack of certified trainers, coaches were the major providers of treatment and care for athletic injuries. (See Table 8.)

8. According to coaches, approximately one-half of the high school student trainers have little or no training in the care and treatment of athletic injuries. (See Table 10.)

9. In the majority of cases, only football and basketball are the sports contests where someone is

designated to provide care and supervision of athletic injuries. (See Tables 11 and 12.)

10. Athletic coaches are designated to provide the majority of care and treatment of athletic injuries during practice sessions. (See Table 13.)

11. The majority of the high schools surveyed did not have an intramural program that needed the services of an athletic trainer. (See Table 16.)

12. The majority of the students surveyed indicated that they would not consider athletic training or a primary career. (See Table 18.)

13. One-fourth of Middle Tennessee State University students surveyed indicated they would consider athletic training as a secondary career. (See Table 19.)

14. However, ten percent of the students surveyed indicated that they would enroll in a N.A.T.A. certification program at Middle Tennessee State University. (See Table 20.)

OBSERVATIONS

In the process of carrying out the study, the researcher made several observations:

1. In Item 2(A), a team physician acted in the capacity of an athletic trainer 18.89 percent of the time according to the coaches and 25.58 percent of the time according to the principals surveyed. A question that

arises is: Are the team physicians available at all practice sessions and athletic contests? Also, 6.98 percent of the principals indicated that a certified athletic trainer served in that capacity. Certified by whom? What type of certification? There seems to be a discrepancy with Item 1. There is only one N.A.T.A. certified athletic trainer employed in senior high schools in the state of Tennessee.

2. In Item 3(A), one principal indicated that the student trainer at his school had completed the N.A.T.A. certification program. The response does not correspond with Item 1.

3. A high proportion of coaches and principals answered "yes" to Item 4. The proportion of coaches responding "yes" is significantly higher ($z = 3.16$, .01 level of significance) than that of the principals who may be considered to have more say in hiring. Although the difference is significant statistically, it may be more an artifact of sample sizes than a reflection of meaningful differences between the two groups.

4. There may be a discrepancy in reported interest between the coaches and the principals due to the fact that the coaches themselves may be interested in obtaining athletic training certification.

5. In Item 9, 35.60 percent of the coaches and 34.78 percent of the principals indicate that there is

someone "always" available at all athletic contests. There seems to be a discrepancy with Item 9(A), where football and basketball receive the most attention. One question that needs answering is: Are the people designated to provide care and treatment of athletic injuries qualified to do so?

6. The word "designated" in Item 10 may be inappropriate. The duty of caring and treating athletic injuries may be taken for granted.

7. In Item 10(A), coaches are responsible for the care and treatment of athletic injuries the majority of the time. How many of the coaches are certified? What about the question of legal liability? Also, there seems to be a discrepancy of the principals' responses concerning the "d" category with their responses to Item 1.

8. In Item 11, is the coach qualified to determine the extent and seriousness of an injury and make a decision whether a player is able to return to competition 37.39 percent of the time? What about legal liability?

9. In Item 12, 40.97 percent of the coaches surveyed and 39.13 percent of the principals indicate that the athlete is transported one mile or less to receive proper care. The following questions may need to be dealt with: What type of transportation vehicle is available? How many injuries warrant the use of an ambulance? Who accompanies the injured athlete to the hospital? Who is

responsible to administer first aid en route to the point of destination?

10. How serious are the injuries of Items 4(A) and 15? Do principals know more about the number of injuries that occur than the coaches?

RECOMMENDATIONS

Based on the conclusions of this study, the investigator concluded that there is a definite need for a N.A.T.A. certification program at Middle Tennessee State University. Specific recommendations for further study are as follow:

1. A N.A.T.A. certification program should be implemented following approved guidelines.
2. A follow-up study should be made to include the entire state of Tennessee. The purpose is to determine the number of certified athletic trainers employed in senior high schools, colleges, and universities in Tennessee since the initiation of the certification program at Middle Tennessee State University.
3. The follow-up study should be limited to senior high school principals and coaches.
4. It may be interesting if the populations could be surveyed by telephone or during some type of meeting where any questions that may arise could be answered.

5. Principals, coaches, and parents need to be informed about athletic trainers certified by the National Athletic Trainers Association, and their importance to athletic programs.

6. Based on the findings of this study, a state law requiring a certified athletic trainer in every secondary school, college, and university should be proposed in the near future. This law should be uniform in nature with other states that have already passed similar statutes.

APPENDIXES

APPENDIX A

CERTIFIED ATHLETIC TRAINERS WITH
TENNESSEE ADDRESSES

CERTIFIED ATHLETIC TRAINERS WITH TENNESSEE ADDRESSES

Name	Classification	Address
*David Adams	Certified	David Lipscomb College Nashville, TN
William Armstrong	Certified	Memphis, TN
*Linda S. Arnold	Certified	Memphis State University Memphis, TN
**Stephen Bartlett	Certified	The McCallie School Chattanooga, TN
Charles T. Bradshaw	Certified	Maryville, TN
*George H. Camp, III	Certified	Middle Tennessee State University, Murfreesboro, TN
*Edwin D. Cantler, Jr.	Certified	Memphis State University Memphis, TN
*Anthony D. Carter	Certified	Austin Peay State University Clarksville, TN
*Jerry Carter	Certified	Southwestern College Memphis Rogues Soccer Team Memphis, TN
Herbert B. Cline III	Certified	Murfreesboro, TN

Name	Classification	Address
*Ernest J. Daniel	Certified	Austin Peay State University Clarksville, TN
Patricia Darlington	Certified	Memphis, TN
*William H. Davis	Certified	U.T. at Martin Martin, TN
*Dorothy Holland	Certified	U.T. at Martin Martin, TN
Walter L. Jenkins	Certified	Nashville, TN
*Thomas L. Kerin	Certified	University of Tennessee Knoxville, TN
*Charles Kimmel, Jr.	Certified	East Tennessee State University, Johnson City, TN
*Terrance R. Lewis	Certified	U.T. at Chattanooga Chattanooga, TN
*Rita D. Mays	Certified	Milligan College Milligan, TN
*Steve Moore	Certified	Tennessee Tech. University Cookeville, TN
Robert M. Nevil	Certified	Morristown, TN

Name	Classification	Address
*Kevin P. O'Neill	Certified	University of Tennessee Knoxville, TN
*John A. Redgren	Certified	Vanderbilt University Nashville, TN
*Jerry Robertson	Certified	East Tennessee State University, Johnson City, TN
Thomas Wall	Certified	Knoxville, TN
*Joe Worden	Certified	Vanderbilt University Nashville, TN

*Certified Athletic Trainers "actively engaged" in colleges and universities in Tennessee.

**Certified Athletic Trainers "actively engaged" in high schools in Tennessee.

Source: "Master File Listing," National Athletic Trainers Association, Greenville, North Carolina, August 29, 1979. (Computer Print-out Sheet)

APPENDIX B

SCHOOLS OFFERING N.A.T.A. APPROVED
CURRICULUM IN ATHLETIC TRAINING
AS OF DECEMBER, 1973

Undergraduate Curriculum in Athletic Training

Appalachian State University Boone, North Carolina	Northeastern University Boston, Massachusetts
Ball State University Muncie Indiana	University of North Dakota Ellendale, North Dakota
California State College Long Beach, California	Ohio University Athens, Ohio
Central Michigan University Mount Pleasant, Michigan	University of Oregon Eugene Oregon
Indiana State University Terre Haute, Indiana	Oregon State University Corvallis, Oregon
Indiana University Bloomington, Indiana	Purdue University Lafayette, Indiana
Lamar University Beaumont, Texas	Southwest Texas State University, San Marcos, Texas
Louisiana State University Baton Rouge, Louisiana	University of Washington Seattle, Washington
Mankato State College Mankato, Minnesota	Washington State University Pullman, Washington
University of Montana Missoula, Montana	West Chester State College West Chester, Pennsylvania
University of New Mexico Albuquerque, New Mexico	Western Illinois University Macomb, Illinois

Graduate Curriculum in Athletic Training

University of Arizona Tuscon, Arizona	Indiana State University Terre Haute, Indiana
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Source: Athletic Training Careers, the National Athletic Trainers Association Brochure, Lafayette, Indiana, the National Athletic Trainers Association, 1973. (Brochure)

APPENDIX C

SCHOOLS CURRENTLY OFFERING N.A.T.A.
APPROVED CURRICULUM IN
ATHLETIC TRAINING

Undergraduate Curriculum in Athletic Training

Arizona State University Tempe, Arizona	Louisiana State University Baton Route, Louisiana
California State University, Fullerton Fullerton, California	Northeastern University Boston, Massachusetts
California State University, Long Beach Long Beach, California	Central Michigan University Mount Pleasant, Michigan
California State University, Northridge Northridge, California	Mankato State University Mankato, Minnesota
California State University, Sacramento Sacramento, California	University of Southern Mississippi Hattiesburg, Mississippi
University of Delaware Newark, Delaware	University of Montana Missoula, Montana
Eastern Illinois University Charleston, Illinois	University of Nebraska, Lincoln Lincoln, Nebraska
Western Illinois University Macomb, Illinois	University of New Mexico Albuquerque, New Mexico
Ball State University Muncie, Indiana	State University College at Cortland Cortland, New York
Indiana University Bloomington, Indiana	Appalachian State University Boone, North Carolina
Indiana State University Terre Haute, Indiana	East Carolina University Greenville, North Carolina
Purdue University West Lafayette, Indiana	North Dakota State University Fargo, North Dakota
University of Iowa Iowa City, Iowa	University of North Dakota Grand Forks, North Dakota
Eastern Kentucky University Richmond, Kentucky	Ohio University Athens, Ohio

Toledo University Toledo, Ohio	South Dakota State University Brookings, South Dakota
Oregon State University Corvallis, Oregon	Lamar University Beaumont, Texas
University of Oregon Eugene, Oregon	Southwest Texas State University San Marcos, Texas
Portland State University Portland, Oregon	Stephen F. Austin State University Nacagodoches, Texas
East Stroudsburg State College East Stroudsburg, Pennsylvania	Texas Christian University Fort Worth, Texas
Lock Haven State College Lock Haven, Pennsylvania	Brigham Young University Provo, Utah
Pennsylvania State University University Park, Pennsylvania	Washington State University Pullman, Washington
University of Pittsburgh Pittsburgh, Pennsylvania	West Virginia University Morgantown, West Virginia
Slippery Rock State College Slippery Rock, Pennsylvania	
West Chester State College West Chester, Pennsylvania	

Graduate Curriculum in Athletic Training

University of Arizona Tuscon, Arizona	University of Oregon Eugene, Oregon
Indiana State University Terre Haute, Indiana	University of Virginia Charlottesville, Virginia
University of North Carolina Chapel Hill, North Carolina	

Source: Athletic Training Careers, the National Athletic Trainers Association Brochure, Greenville, N.C., the National Athletic Trainers Association, 1979. (Brochure)

APPENDIX D

SOME CASES OF ATHLETIC INJURIES

SOME CASES OF ATHLETIC INJURIES

. Kenton, Ohio. Mark Valentine, seventeen years old, a heavy lineman, dies after running two miles in under twelve minutes during a heat wave in mid-August.

. Chapel Hill, North Carolina. Bill Arnold, twenty years old, dies as a result of a heat stroke incurred while practicing football in early September.

. Honesdale, Pennsylvania. Walter Richard Wilkinson, seventeen years old, dies of exhaustion after a two-hour-and-fifteen-minute football practice in full uniform during a heat wave in early September.

. Dothan, Alabama. Joe Davis, fifteen years old, dies of a broken neck sustained in a tackling drill held in the gymnasium in mid-September.

. Harleton, Texas. Terry Ray Muse, sixteen years old, dies following his collapse while playing a football game in mid-September.

. Chicago, Illinois. Marco Cervantes, seventeen years old, dies from brain damage suffered while butting into a 200-pound linebacker in late October.

. Livingston, New Jersey. Bob Taratko, seventeen years old, dies following a pileup in a high school football game in early November.

. Wilkes Barre, Pennsylvania. Bobby McBride, twenty years old, dies from injuries received in a college football game in mid-November.

. Bakersfield, California. John Vaughn, sixteen years old, dies from head injuries received while tackling in a sandlot football game in mid-December.

Source: James A. Michener, Sports in America
(Greenwich, Connecticut: Fawcett
Publications, 1976), p. 111.

APPENDIX E

ACCEPTED CONTINUING EDUCATION UNITS

Categories

1. N.A.T.A. Annual National Meeting: 2 C.E.U.'s for registration of each annual national meeting of the N.A.T.A.
2. Scientific Workshops Offered At The N.A.T.A.'s Annual National Symposium: 1 C.E.U. for every 10 contact hours of workshop. (1 contact hour = .1 C.E.U.).
3. N.A.T.A. District Meetings: 1 C.E.U. for every 10 contact hours will be awarded for the scientific program content offered at the district meeting. (1 contact hour = .1 C.E.U.).
4. N.A.T.A. Approved Short Term Courses: Clinics, workshops, seminars or N.A.T.A. approved courses, etc. endorsed by the Professional Education Committee at least 30 days in advance of the date of the program will be awarded 1 C.E.U. for every 10 contact hours of scientific program content. (1 contact hour = .1 C.E.U.).
5. Scientific Meetings Approved by the Professional Education Committee: (Ex: American Medical Association, American Academy of Orthopedic Surgeons, American College Health Association, American College of Sports Medicine, American Association of Health, Physical Education and Recreation, American Physical Therapy Association, etc.). One C.E.U. will be awarded for every 10 contact hours of approved content. (1 contact hour = .1 C.E.U.).
6. Publication of Original Work: Publication of an original paper in the N.A.T.A.'s quarterly publication "Athletic Training" will be awarded 1.5 C.E.U.'s per original paper. One C.E.U. will be awarded per original publication in a state or national scientific journal or publication of a related professional organization.
7. Program Participation: Credit units will be awarded for the presentation of an original paper or program participation at district or national level N.A.T.A. meetings or related professional meetings. One C.E.U. will be awarded for each presentation or participation.
8. Promotion of Athletic Training to Other Groups: The presentation of athletic training to non-related organizations and civic groups will be awarded .5 C.E.U. per presentation.

9. Teaching of Athletic Training Courses. 0.5 C.E.U. will be awarded for each credit hour of actual teaching that is not part of your job description, not to exceed 1 C.E.U. per year.
10. Student Trainer Supervision: .5 C.E.U. per year will be awarded for supervision of a student trainer program for a full academic year. If more than one athletic trainer (certified or associate) is supervising the student trainer program, each receives equal credit.
11. Postgraduate Study: Hours spent in postgraduate study in athletic training or related fields may be submitted as units of credit for consideration by the Professional Education Committee. .5 C.E.U. will be awarded for each credit hour accepted.
12. Special Projects: All projects must be submitted to the Professional Education Committee for consideration. Projects such as, development of or participation in films, radio conferences, television programs or other audiovisual aids that may be used as a teaching aid or for public relations in the field of athletic training, will be awarded .5 C.E.U. per project. Preparation and presentation of a scientific athletic training exhibit at the local, district or national level. Limit of .5 C.E.U. per exhibit.
13. Corresponding Courses: Correspondence courses in athletic training or related fields approved by the Professional Education Committee in advance will be awarded .5 C.E.U. for each course. Correspondence course will be approved by the Professional Education Committee only when the school provides an examination and certifies to the satisfactory completion of the course.

Other N.A.T.A. Activities

1. Serving as a national or district officer in the N.A.T.A. will be awarded one C.E.U. per year.
2. Committee membership in the N.A.T.A. at the national level and/or district level will be awarded one C.E.U. per year. An additional .5 C.E.U. each year will be awarded for the chairmanship of a committee.

3. Certification testing. Those members participating in the certification examinations will be awarded .5 C.E.U. per testing date not to exceed one C.E.U. per year.
4. Official liaison activity. Those members serving in the capacity of a liaison for the N.A.T.A. will be awarded .5 C.E.U. each year.
5. State Organizations. Those members serving as officers or committee chairperson in a formally organized State Athletic Trainers organization shall receive .5 C.E.U. for each full calendar year served in that capacity. This would include those officially designated as working toward state licensure.
6. Visitation team members doing curriculum evaluations shall be awarded .5 C.E.U. per visit not to exceed 1 per year.

Miscellaneous

1. Performance of Additional Athletic Training Services: Participation in international events, all-star games, N.C.A.A. and A.A.U. Championship events, etc., as athletic trainer will be awarded .5 C.E.U. per event.
2. Tapes and Cassettes of Proceedings: Purchase of tapes and cassettes of N.A.T.A. approved proceedings will earn .1 C.E.U. per unit acquired.
3. Special Considerations: The Professional Education Committee will give consideration to all educational activities submitted that are not listed above.

Source: Jack Redgren, "Continuing Education," National Athletic Trainers Association (Greenville, North Carolina: January 1, 1979), letterhead.
(Mimeographed)

APPENDIX F

HIGH SCHOOLS CONSIDERED FOR THE STUDY

HIGH SCHOOLS CONSIDERED FOR THE STUDY

<u>County</u>	<u>High School</u>	<u>Address</u>
Bedford	Cascade	Wartrace 37138
	Central	Shelbyville 37160
Cannon	Central	Woodbury 37190
Cheatham	Cheatham County	Ashland City 37015
Coffee	Central	Manchester 37355
	Tullahoma	Tullahoma 37388
Clay	Celina	Celina 38551
	Hermitage Springs	Red Boiling Springs 37150
Davidson (Public Schools)	Antioch	Antioch 37013
	Bellevue	626 Colice Jeanne Rd. 37021
	Cohn	4800 Park Ave. 37209
	Dupont	Tyler Dr., Hermitage 37076
	East	110 Gallatin Rd. 37206
	Glenclyff	160 Antioch Pk. 37211
	Goodlettsville	Goodlettsville 37072
	Hillsboro	3812 Hillsboro Rd. 37215
	Hillwood	6215 Hickory Valley Rd. 37205
	Hume Fogg	700 Broadway 37203
	Joelton	Joelton 37080
	McGavock	3150 McGavock Pk. 37214
	Madison	300 Old Hickory Blvd. 37115
	Maplewood	Maplewood Lane 37216
	Overton	4820 Franklin Rd. 37220
	Pearl	613 17th Ave., N. 37218
	Stratford	100 Stratford Ave. 37216

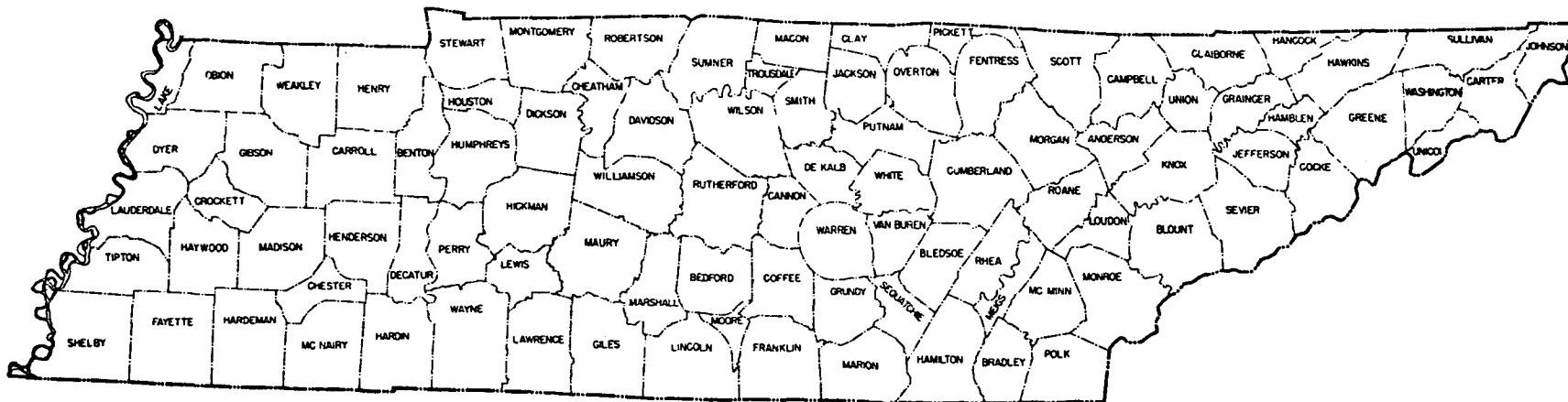
<u>County</u>	<u>High School</u>	<u>Address</u>
Davidson (Public Schools-- Continued)	Whites Creek	7277 Old Hickory Blvd. Whites Creek 37189
Davidson (Private Schools)	Brentwood Academy David Lipscomb Father Ryan Harpeth Hall Madison Academy Goodpasture Academy Franklin Road Academy M.B.A.	Granny White Pk. 37027 Granny White Pk. 37027 2300 Elliston Pl. 37203 3801 Hobbs Rd. 37215 Madison 37115 619 Due West Ave. 37115 4800 Franklin Rd. 37220 4001 Harding Rd. 37205
Dekalb	Dekalb Co.	Smithville 37166
Dickson	Dickson Co.	Dickson 37055
Franklin	Franklin Co. Huntland	Winchester 37398 Huntland 37345
Giles	Giles Co. Richlands	Pulaski 38478 Lynnville 37206
Grundy	Grundy Co.	Tracy City 37387
Hickman	Hickman Co.	Centerville 37033
Jackson	Central	Gainsboro 38462
Lawrence	Lawrence Co. Loretta	Lawrenceburg 38464 Loretta 38469
Lewis	Lewis Co.	Hohenwald 38462

<u>County</u>	<u>High School</u>	<u>Address</u>
Lincoln	Blanche Boonshill Central Flintville	Taft 37383 Petersburg 37144 Fayetteville 37334 Flintville 37334
Macon	Macon Co. Red Boiling Springs	LaFayette 37083 Red Boiling Springs 37150
Marion	Marion Co. South Pittsburg Whitwell	Jasper 37347 South Pittsburg 37347 Whitwell 37397
Maury	Central Culloeka Hampshire Santa Fe Spring Hill Columbia Academy	Columbia 38401 Culloeka 38451 Hampshire 38461 Santa Fe 38482 Spring Hill 3717 Columbia 38401
Moore	Moore Co.	Lynchburg 37352
Putnam	Putnam Co. Monterey Upperman	Cookeville 38501 Monterey 38574 Baxter 38544
Robertson	East Robertson Green Brier Jo Byrns Springfield	Cross Plains 37049 Green Brier 37073 Cedar Hill 37032 Springfield 37172
Rutherford	Eagleville Oakland Riverdale Smyrna	Eagleville 37060 Murfreesboro 37130 Murfreesboro 37130 Smyrna 37167

<u>County</u>	<u>High School</u>	<u>Address</u>
Sequatchie	Sequatchie Co.	Dunlap 37327
Smith	Gordonsville Smith Co.	Gordonsville 38563 Carthage 37030
Sumner	Gallatin Hendersonville Portland Westmoreland White House	Gallatin 37066 Hendersonville 37075 Portland 37148 Westmoreland 37186 White House 37188
Trousdale	Trousdale	Hartsville 37074
Van Buren	Van Buren Co.	Spencer 38585
Warren	Warren Co.	McMinnville 37110
White	Sparta-White Co.	Sparta 38583
Williamson	Fred Page Fairview Franklin B.G.A.	Franklin 37064 Fairview 37062 Franklin 37064 Franklin 37064
Wilson	Lebanon Mt. Juliet Watertown Castle Heights Friendship Christian	Lebanon 37087 Mt. Juliet 37122 Watertown 37184 Lebanon 37087 Lebanon 37087

APPENDIX G

MAP OF TENNESSEE



Compiled and Reproduced by

The TENNESSEE STATE
PLANNING COMMISSION

APPENDIX H

PRINCIPALS' QUESTIONNAIRE

PRINCIPALS' QUESTIONNAIRE

Name: _____

Name of School: _____

Please read the following questions carefully and check the most appropriate responses.

1. Does your school employ an athletic trainer certified by the National Athletic Trainers Association (NATA)?

☐ a. yes
☐ b. no

2. Is there a person or persons affiliated with your school who acts in the capacity of athletic trainer?

☐ a. yes
☐ b. no

- 2(A). If the answer is "yes," from the following list please check the most appropriate response(s).

☐ a. coach
☐ b. teacher
☐ c. paramedic
☐ d. team physician
☐ e. chiropractor
☐ f. certified athletic trainer
☐ g. other _____ (please specify)

3. Do you have a student trainer on your staff?

☐ a. yes
☐ b. no

- 3(A). If the answer is "yes," what type of athletic trainer certification program has he/she completed?

☐ a. none
☐ b. Cramer student trainer course
☐ c. National Athletic Trainers Association Certification Program
☐ d. other _____ (please specify)

4. If you had a vacancy on your faculty, would you recommend hiring a certified athletic trainer who is qualified to teach various subject areas, such as Science, English, Chemistry, Mathematics, Physical Education, etc.?
- ☐ a. yes
☐ b. no
☐ c. undecided
5. Do you believe there is a general need for certified athletic trainers at the senior high school level?
- ☐ a. yes
☐ b. no
6. How often have parents, teachers or coaches complained about the lack of treatment and care of athletic injuries received by athletes and students? Please check the most appropriate response.
- ☐ a. never
☐ b. occasionally
☐ c. frequently
7. Do you believe that a certification program for athletic trainers at a state university is needed and would be beneficial to your region?
- ☐ a. yes
☐ b. no
8. Is there anyone presently on your faculty who would be interested in obtaining athletic training certification?
- ☐ a. yes
☐ b. no
- 8(A). If the answer is "yes," in your opinion what modes of instruction would be most suitable for obtaining certification? Please rank the following choices by numbering them 1-5, number 1 being the highest rank.
- ☐ a. weekend classes
☐ b. night classes
☐ c. summer school classes
☐ d. home study classes
☐ e. other _____ (please specify)

9. Is there someone designated to provide any type of care and supervision concerning sport-related injuries at all athletic contests sponsored by your school?
- ☐ a. never
 - ☐ b. occasionally
 - ☐ c. frequently
 - ☐ d. always
- 9(A). If the answer is "never," at which of the following athletic contests is someone available? Please check the most appropriate answer(s).
- ☐ a. football
 - ☐ b. basketball
 - ☐ c. baseball
 - ☐ d. wrestling
 - ☐ e. tennis
 - ☐ f. other _____ (please specify)
10. Is there someone at your school designated to provide any type of care and supervision concerning sports-related injuries at practice sessions?
- ☐ a. yes
 - ☐ b. no
- 10(A). If the answer is "yes," indicate by position who is so designated?
- ☐ a. coach
 - ☐ b. physician
 - ☐ c. paramedic
 - ☐ d. certified athletic trainer
 - ☐ e. chiropractor
 - ☐ f. other _____ (please specify)
11. In the event of an injury, who determines whether or not a player is able to return to competition? Please check the most appropriate response.
- ☐ a. coach
 - ☐ b. physician
 - ☐ c. paramedic
 - ☐ d. certified athletic trainer
 - ☐ e. chiropractor
 - ☐ f. student trainer
 - ☐ g. other _____ (please specify)

12. If a player is injured during a practice session or athletic contest at your school, approximately how far would you have to transport the injured participant to receive proper care? Please check the most appropriate answer.
- ☐ a. 1 mile or less
 - ☐ b. 2 to 4 miles
 - ☐ c. 5 to 7 miles
 - ☐ d. 8 to 10 miles
 - ☐ e. beyond 10 miles _____ (please specify)
13. If a player is injured during a practice session or contest at your school, approximately how long would it take to transport the injured participant to receive proper care? Please check the most appropriate answer.
- ☐ a. 5 to 10 minutes
 - ☐ b. 10 to 15 minutes
 - ☐ c. 15 to 20 minutes
 - ☐ d. 20 to 25 minutes
 - ☐ e. 25 to 30 minutes
 - ☐ f. more than 30 minutes _____ (please specify)
14. Does your school have an intramural program needing the services of a certified athletic trainer?
- ☐ a. yes
 - ☐ b. no
- 14(A). If the answer is "yes," approximately how many injuries occur during a school year in the intramural program?
- ☐ a. 1 to 5
 - ☐ b. 6 to 10
 - ☐ c. 11 to 15
 - ☐ d. 16 to 20
 - ☐ e. other _____ (please specify)
15. Approximately how many injuries occur during a school year in the entire interscholastic athletic program?
- ☐ a. 1 to 5
 - ☐ b. 6 to 10
 - ☐ c. 11 to 15
 - ☐ d. 16 to 20
 - ☐ e. other _____ (please specify)

16. Do you know of any graduating students who might be interested in becoming a certified athletic trainer?

- ☐ a. yes
- ☐ b. no

16(A). If the answer is "yes," would this be his or her:

- ☐ a. primary career
- ☐ b. avocation (secondary career)

APPENDIX I

COVER LETTER AND COACHES' QUESTIONNAIRE

MIDDLE TENNESSEE STATE UNIVERSITY

Department of Athletics

Murfreesboro, Tennessee 37132

Dear Coach:

This brief survey consists of sixteen questions and is attempting to determine whether or not there is a need for certified athletic trainers in senior high schools.

Please take a few minutes to answer the questionnaire and return it to the questionnaire table.

Your cooperation is needed to establish the most appropriate solution and is deeply appreciated.

Thank you.

Sincerely,

/s/

Herb Cline
Basketball Staff
MTSU

HC:bm

Name: _____ Name of School: _____

Sport Coached: _____

COACHES' QUESTIONNAIRE

Please read the following questions carefully and check the most appropriate responses.

1. Does your school employ an athletic trainer certified by the National Athletic Trainers Association (NATA)?

☐ a. yes
☐ b. no

2. Is there a person or persons affiliated with your school who acts in the capacity of athletic trainer?

☐ a. yes
☐ b. no

- 2(A). If the answer is "yes," from the following list please check the most appropriate response(s).

☐ a. coach
☐ b. teacher
☐ c. paramedic
☐ d. team physician
☐ e. chiropractor
☐ f. certified athletic trainer
☐ g. other _____ (please specify)

3. Do you have a student trainer on your staff?

☐ a. yes
☐ b. no

- 3(A). If the answer is "yes," what type of athletic trainer certification program has he/she completed?

☐ a. none
☐ b. Cramer student trainer course
☐ c. National Athletic Trainers Association
Certification Program
☐ d. other _____ (please specify)

4. If you had a vacancy on your faculty, would you recommend hiring a certified athletic trainer who is qualified to teach various subject areas such as Science, English, Chemistry, Mathematics, Physical Education, etc.?
- ☐ a. yes
☐ b. no
☐ c. undecided
5. Do you believe there is a general need for certified athletic trainers at the senior high school level?
- ☐ a. yes
☐ b. no
6. How often have parents, teachers or coaches complained about the lack of treatment and care of athletic injuries received by athletes and students? Please check the most appropriate response.
- ☐ a. never
☐ b. occasionally
☐ c. frequently
7. Do you believe that a certification program for athletic trainers at a state university is needed and would be beneficial to your region?
- ☐ a. yes
☐ b. no
8. Is there anyone presently on your faculty who would be interested in obtaining athletic training certification?
- ☐ a. yes
☐ b. no
- 8(A). If the answer is "yes," in your opinion what modes of instruction would be most suitable for obtaining certification. Please rank the following choices by numbering them 1-5, number 1 being the highest rank.
- ☐ a. weekend classes
☐ b. night classes
☐ c. summer school classes
☐ d. home study classes
☐ e. other _____ (please specify)

9. Is there someone designated to provide any type of care and supervision concerning sport-related injuries at all athletic contests sponsored by your school?
- ☐ a. never
 - ☐ b. occasionally
 - ☐ c. frequently
 - ☐ d. always
- 9(A). If the answer is "never," at which of the following athletic contests is someone available? Please check the most appropriate answer(s).
- ☐ a. football
 - ☐ b. basketball
 - ☐ c. baseball
 - ☐ d. wrestling
 - ☐ e. tennis
 - ☐ f. other _____ (please specify)
10. Is there someone at your school designated to provide any type of care and supervision concerning sport-related injuries at practice sessions?
- ☐ a. yes
 - ☐ b. no
- 10(A). If the answer is "yes," indicate by position who is so designated:
- ☐ a. coach
 - ☐ b. physician
 - ☐ c. paramedic
 - ☐ d. certified athletic trainer
 - ☐ e. chiropractor
 - ☐ f. other _____ (please specify)
11. In the event of an injury, who determines whether or not a player is able to return to competition? Please check the most appropriate response.
- ☐ a. coach
 - ☐ b. physician
 - ☐ c. paramedic
 - ☐ d. certified athletic trainer
 - ☐ e. chiropractor
 - ☐ f. student trainer
 - ☐ g. other _____ (please specify)

12. If a player is injured during a practice session or athletic contest at your school, approximately how far would you have to transport the injured participant to receive proper care? Please check the most appropriate response.
- ☐ a. 1 mile or less
 - ☐ b. 2 to 4 miles
 - ☐ c. 5 to 7 miles
 - ☐ d. 8 to 10 miles
 - ☐ e. beyond 10 miles _____ (please specify)
13. If a player is injured during a practice session or contest at your school, approximately how long would it take to transport the injured participant to receive proper care? Please check the most appropriate answer.
- ☐ a. 5 to 10 minutes
 - ☐ b. 10 to 15 minutes
 - ☐ c. 15 to 20 minutes
 - ☐ d. 20 to 25 minutes
 - ☐ e. 25 to 30 minutes
 - ☐ f. more than 30 minutes _____ (please specify)
14. Does your school have an intramural program needing the services of a certified athletic trainer?
- ☐ a. yes
 - ☐ b. no
- 14(A). If the answer is "yes," approximately how many injuries occur during a school year in the intramural program? Please check the most appropriate answer.
- ☐ a. 1 to 5
 - ☐ b. 6 to 10
 - ☐ c. 11 to 15
 - ☐ d. 16 to 20
 - ☐ e. other _____ (please specify)
15. Approximately how many injuries occur during a school year in the entire interscholastic athletic program?
- ☐ a. 1 to 5
 - ☐ b. 6 to 10
 - ☐ c. 11 to 15
 - ☐ d. 16 to 20
 - ☐ e. other _____ (please specify)

16. Do you know of any graduating students who might be interested in becoming a certified athletic director?

- ☐ a. yes
- ☐ b. no

16(A). If the answer is "yes," would it be his or her:

- ☐ a. primary career
- ☐ b. avocation (secondary career)

APPENDIX J

STUDENT QUESTIONNAIRE

STUDENT QUESTIONNAIRE

Please carefully read and complete the following questions.

Name _____ Male or Female _____ Age _____

Home State _____ Academic Status (circle one) Fr. So. Jr.

Sr. Other _____ (please specify)

1. What is your major at M.T.S.U.? If "undeclared," please state so. _____

2. What is your minor? If "undeclared," please state so. _____

3. Do you plan to enter the teaching or coaching profession? (check one)

- _____ a. yes
- _____ b. no
- _____ c. undecided

3(A). If the answer to number 3 is "yes," please check the best answer.

- _____ a. elementary
- _____ b. secondary
- _____ c. college or university
- _____ d. other _____ (please specify)

4. Would you consider athletic training as a primary career? (check one)

- _____ a. yes
- _____ b. no
- _____ c. undecided

5. Would you consider athletic training as a secondary career? (check one)

- _____ a. yes
- _____ b. no
- _____ c. undecided

6. Next year, M.T.S.U. is offering a certification program in athletic training. Will you be interested in obtaining athletic training certification? (check one)

☐ a. yes
☐ b. no
☐ c. undecided

7. Do you know of someone who would be interested in enrolling in an athletic training certification program at M.T.S.U.? (check one)

☐ a. yes
☐ b. no

8. Do you know of someone at M.T.S.U. who would be interested in enrolling in an athletic training certification program? (check one)

☐ a. yes
☐ b. no

APPENDIX K

FACE LETTER TO PRINCIPALS

MIDDLE TENNESSEE STATE UNIVERSITY

Department of Athletics

Murfreesboro, Tennessee 37132

May 1, 1979

Dear Sir:

I am conducting a survey to determine whether or not there is a need for Certified Athletic Trainers in our high schools.

To clarify, a Certified Athletic Trainer is an individual who has completed the necessary curriculum requirements established by the National Athletic Trainers Association (NATA). This person is skilled in the prevention, treatment, and rehabilitation of sports-related injuries.

All high schools within an approximate fifty mile radius of Middle Tennessee State University will be included in the survey.

Enclosed is a questionnaire and a stamped, self-addressed, return envelope. It would contribute so much to this study if you would take a few minutes to answer it.

Thank you for your effort and cooperation.

Sincerely,

/s/

Herbert B. Cline, III
P.O. Box 4819
Middle Tennessee State University
Murfreesboro, Tennessee 37132

HBC:bm

Enclosures

APPENDIX L
FOLLOW-UP LETTER

MIDDLE TENNESSEE STATE UNIVERSITY

Department of Athletics

Murfreesboro, Tennessee 37132

October 12, 1979

Dear Sir:

This follow-up letter is to ask you once again to please complete the enclosed questionnaire. As you already know, I am conducting a study to determine whether or not there is a need for certified athletic trainers in our high school.

Let me reiterate that your opinion is of vital importance to the success of my dissertation.

Please take a few minutes to answer and return the questionnaire in the enclosed, self-addressed, return envelope.

Thank you once again for your cooperation.

Sincerely,

/s/

Herbert B. Cline, III
Box 4819
M.T.S.U.
Murfreesboro, Tennessee 37132

APPENDIX M

OVERVIEW OF ANALYZED DATA OF THE THREE QUESTIONNAIRES

4--P.E. Maj.

1--P.E. Min.

1--Coaching Min.

1--Rec. Min.

STUDENT QUESTIONNAIRE

161 = T

Please carefully read and complete the following questions.

Name _____ Male or Female _____ Age _____

Home State _____ Academic Status (circle one) Fr. So. Jr.

Sr. Other _____ (please specify)

1. What is your major at M.T.S.U.? If "undeclared," please state so. _____

2. What is your minor? If "undeclared," please state so. _____

3. Do you plan to enter the teaching or coaching profession? (check one)

	F	%
_____ a. yes	24	14.91
_____ b. no	114	70.81
_____ c. undecided	23	14.28

3(A). If the answer to number 3 is "yes," please check the best answer.

	F	%
_____ a. elementary	11	45.83
_____ b. secondary	9	37.50
_____ c. college or university	1	4.17
_____ d. other _____ (please specify)	3	12.50

4. Would you consider athletic training as a primary career? (check one)

	F	%
_____ a. yes	19	11.80
_____ b. no	125	77.64
_____ c. undecided	17	10.56

5. Would you consider athletic training as a secondary career? (check one)

	F	%
_____ a. yes	45	27.95
_____ b. no	89	55.28
_____ c. undecided	27	16.77

6. Next year, M.T.S.U. is offering a certification program in athletic training. Will you be interested in obtaining athletic training certification? (check one)

		F	%
<u> </u>	a. yes	16	9.44
<u> </u>	b. no	104	64.60
<u> </u>	c. undecided	41	25.46

7. Do you know of someone who would be interested in enrolling in an athletic training certification program at M.T.S.U.? (check one)

		F	%
<u> </u>	a. yes	47	29.19
<u> </u>	b. no	114	70.81

8. Do you know of someone at M.T.S.U. who would be interested in enrolling in an athletic training certification program? (check one)

		F	%
<u> </u>	a. yes	43	26.71
<u> </u>	b. no	118	73.29

	F	%	<u>Academic Status</u>	
Male	59	36.6		
Female	102	63.4		
			F	%
			Fr.	97 60.2
			So.	64 39.8
Age	#	%	<u>Students from Tenn.</u>	
16	1	0.6		
17	3	1.9		
18	86	53.4		
19	54	33.5	Tenn.	151 93.8
20	9	5.6	Other	10 6.2
21	4	2.5	1--NC	
22	3	1.9	2--Fla	
23	0	.0	1--Calif	
24	0	.0	1--NY	
25	0	.0	1--SC	
26	1	0.6	1--Nigeria	
			2--Ga.	
N =	161	100.0	1--Ill.	

Name: _____ Name of School: _____

Sport Coached: _____

COACHES' QUESTIONNAIRE

559 = T

Please read the following questions carefully and check the most appropriate responses.

1. Does your school employ an athletic trainer certified by the National Athletic Trainers Association (NATA)?

	F	%	
_____ a. yes	82	14.67	
_____ b. no	475	84.97*	* (.84 < p < .86) = .50
No response	2	.36	

2. Is there a person or persons affiliated with your school who acts in the capacity of athletic trainer?

	F	%	
_____ a. yes	360	64.90*	* (.63 < p < .65) = .50
_____ b. no	198	35.42	
No response	1	.18	

- 2(A). If the answer is "yes," from the following list please check the most appropriate response(s).

	F	%
_____ a. coach	201	55.83
_____ b. teacher	26	7.22
_____ c. paramedic	11	3.06
_____ d. team physician	68	18.99
_____ e. chiropractor	2	.01
_____ f. certified athletic trainer	77	21.39
_____ g. other _____ (please specify)	44	12.22
No response	6	1.67

3. Do you have a student trainer on your staff?

	F	%
_____ a. yes	258	46.15
_____ b. no	299	53.49
No response	2	.36

- 3(A). If the answer is "yes," what type of athletic trainer certification program has he/she completed?

	F	%
_____ a. none	150	58.13
_____ b. Cramer student trainer course	175	67.82
_____ c. National Athletic Trainers Association Certification Program	15	5.81
_____ d. other _____ (please specify)	14	5.42
No response	7	2.71

4. If you had a vacancy on your faculty, would you recommend hiring a certified athletic trainer who is qualified to teach various subject areas such as Science, English, Chemistry, Mathematics, Physical Education, etc.?

	F	%
<input type="checkbox"/> a. yes	488	87.30
<input type="checkbox"/> b. no	17	3.04
<input type="checkbox"/> c. undecided	52	9.30
No response	2	.36

5. Do you believe there is a general need for certified athletic trainers at the senior high school level?

	F	%	
<input type="checkbox"/> a. yes	545	75.36*	* (.98 < p < .98) = .50
<input type="checkbox"/> b. no	10	1.79	
No response	4	.71	

6. How often have parents, teachers or coaches complained about the lack of treatment and care of athletic injuries received by athletes and students? Please check the most appropriate response.

	F	%
<input type="checkbox"/> a. never	162	28.98
<input type="checkbox"/> b. occasionally	333	59.57
<input type="checkbox"/> c. frequently	54	9.66
No response	10	1.79

7. Do you believe that a certification program for athletic trainers at a state university is needed and would be beneficial to your region?

	F	%	
<input type="checkbox"/> a. yes	549	98.21*	* (.98 < p < .98) = .50
<input type="checkbox"/> b. no	5	.89	
No response	5	.89	

8. Is there anyone presently on your faculty who would be interested in obtaining athletic training certification?

	F	%	
<input type="checkbox"/> a. yes	313	55.99*	* (.55 < p < .57) = .50
<input type="checkbox"/> b. no	169	30.23	
No response	77	13.77	

- 8(A). If the answer is "yes," in your opinion what modes of instruction would be most suitable for obtaining certification. Please rank the following choices by numbering them 1-5, number 1 being the highest rank.

	X(559) - X(166)	
<input type="checkbox"/> a. weekend classes	519 = 3.13	MRV
<input type="checkbox"/> b. night classes	412 = 2.48	"
<input type="checkbox"/> c. summer school classes	324 = 1.95	"
<input type="checkbox"/> d. home study classes	458 = 2.76	"
<input type="checkbox"/> e. other _____ (please specify)	793 = 4.78	"

No response 18

No. checks

a. 50 c. 96 e. 2
b. 51 d. 42

9. Is there someone designated to provide any type of care and supervision concerning sport-related injuries at all athletic contests sponsored by your school?

	F	%
<input type="checkbox"/> a. never	64	11.45
<input type="checkbox"/> b. occasionally	150	26.83
<input type="checkbox"/> c. frequently	137	24.51
<input type="checkbox"/> d. always	199	35.60
No response	9	1.61

- 9(A). If the answer is "never," at which of the following athletic contests is someone available? Please check the most appropriate answer(s).

	F	%
<input type="checkbox"/> a. football	53	82.81
<input type="checkbox"/> b. basketball	9	14.06
<input type="checkbox"/> c. baseball	2	3.12
<input type="checkbox"/> d. wrestling	3	4.69
<input type="checkbox"/> e. tennis	1	1.56
<input type="checkbox"/> f. other _____ (please specify)	5	7.81

10. Is there someone at your school designated to provide any type of care and supervision concerning sport-related injuries at practice sessions?

	F	%
<input type="checkbox"/> a. yes	388	69.41
<input type="checkbox"/> b. no	165	29.52
No response	6	1.07

- 10(A). If the answer is "yes," indicate by position who is so designated:

	F	%
<input type="checkbox"/> a. coach	298	76.80
<input type="checkbox"/> b. physician	28	7.22
<input type="checkbox"/> c. paramedic	7	1.80
<input type="checkbox"/> d. certified athletic trainer	71	18.30
<input type="checkbox"/> e. chiropractor	2	.52
<input type="checkbox"/> f. other _____ (please specify)	31	7.99

11. In the event of an injury, who determines whether or not a player is able to return to competition? Please check the most appropriate response.

	F	%
<input type="checkbox"/> a. coach	209	37.39
<input type="checkbox"/> b. physician	376	67.26
<input type="checkbox"/> c. paramedic	5	.89
<input type="checkbox"/> e. chiropractor	58	10.38
<input type="checkbox"/> f. student trainer	9	1.61
<input type="checkbox"/> g. other _____ (please specify)	3	.54
No response	6	1.07

12. If a player is injured during a practice session or athletic contest at your school, approximately how far would you have to transport the injured participant to receive proper care? Please check the most appropriate response.

	F	%
<input type="checkbox"/> a. 1 mile or less	229	40.97
<input type="checkbox"/> b. 2 to 4 miles	182	32.56
<input type="checkbox"/> c. 5 to 7 miles	78	13.95
<input type="checkbox"/> d. 8 to 10 miles	45	8.05
<input type="checkbox"/> e. beyond 10 miles	21	3.76 (please specify)
No response	4	.72

13. If a player is injured during a practice session or contest at your school, approximately how long would it take to transport the injured participant to receive proper care? Please check the most appropriate answer.

	F	%
<input type="checkbox"/> a. 5 to 10 minutes	329	58.86
<input type="checkbox"/> b. 10 to 15 minutes	138	24.69
<input type="checkbox"/> c. 15 to 20 minutes	55	9.84
<input type="checkbox"/> d. 20 to 25 minutes	23	4.11
<input type="checkbox"/> e. 25 to 30 minutes	9	1.61
<input type="checkbox"/> f. more than 30 minutes	1	.18 (please specify)
No response	4	.72

14. Does your school have an intramural program needing the services of a certified athletic trainer?

	F	%
<input type="checkbox"/> a. yes	138	24.69
<input type="checkbox"/> b. no	403	72.09
No response	18	3.22

- 14(A). If the answer is "yes," approximately how many injuries occur during a school year in the intramural program? Please check the most appropriate answer.

	F	%
<input type="checkbox"/> a. 1 to 5	57	41.30
<input type="checkbox"/> b. 6 to 10	36	26.09
<input type="checkbox"/> c. 11 to 15	14	10.14
<input type="checkbox"/> d. 16 to 20	18	13.04
<input type="checkbox"/> e. other _____ (please specify)	13	9.42

15. Approximately how many injuries occur during a school year in the entire interscholastic athletic program?

	F	%
<input type="checkbox"/> a. 1 to 5	60	10.73
<input type="checkbox"/> b. 6 to 10	128	22.90
<input type="checkbox"/> c. 11 to 15	116	20.75
<input type="checkbox"/> d. 16 to 20	151	27.01
<input type="checkbox"/> e. other _____ (please specify)	55	9.84
No response	49	8.77

16. Do you know of any graduating students who might be interested in becoming a certified athletic director?

	F	%	
___ a. yes	209	37.39*	* (.36 < p < .38) = .50
___ b. no	331	59.21	
No response	19	3.50	

16(A). If the answer is "yes," would it be his or her:

	F	%
___ a. primary career	107	51.20
___ b. avocation (secondary career)	102	48.80
No response	19	

PRINCIPALS' QUESTIONNAIRE

Name : _____

Name of School: _____

Please read the following questions carefully and check the most appropriate responses.

1. Does your school employ an athletic trainer certified by the National Athletic Trainers Association (NATA)?

	F	%
<input type="checkbox"/> a. yes	0	0
<input type="checkbox"/> b. no	69	100.0

2. Is there a person or persons affiliated with your school who acts in the capacity of athletic trainer?

	F	%	
<input type="checkbox"/> a. yes	43	62.32*	* (.58 < p < .66) = .50
<input type="checkbox"/> b. no	26	37.68	

- 2(A). If the answer is "yes," from the following list please check the most appropriate response(s).

	F	%
<input type="checkbox"/> a. coach	31	72.09
<input type="checkbox"/> b. teacher	5	11.63
<input type="checkbox"/> c. paramedic	1	2.33
<input type="checkbox"/> d. team physician	11	25.58
<input type="checkbox"/> e. chiropractor	0	.00
<input type="checkbox"/> f. certified athletic trainer	3	6.98
<input type="checkbox"/> g. other _____		(please specify)

3. Do you have a student trainer on your staff?

	F	%
<input type="checkbox"/> a. yes	38	55.07
<input type="checkbox"/> b. no	31	44.93

- 3(A). If the answer is "yes," what type of athletic trainer certification program has he/she completed?

<input type="checkbox"/> a. none	
<input type="checkbox"/> b. Cramer student trainer course	
<input type="checkbox"/> c. National Athletic Trainers Association Certification Program	
<input type="checkbox"/> d. other _____	(please specify)

	F	%		F	%
a.	12	31.58	c.	1	2.63
b.	18	47.37	d.	7	18.42

4. If you had a vacancy on your faculty, would you recommend hiring a certified athletic trainer who is qualified to teach various subject areas, such as Science, English, Chemistry, Mathematics, Physical Education, etc.

	F	%
<input type="checkbox"/> a. yes	50	72.46
<input type="checkbox"/> b. no	7	10.14
<input type="checkbox"/> c. undecided	11	15.94
No response	1	1.46

5. Do you believe there is a general need for certified athletic trainers at the senior high school level?

	F	%	
<input type="checkbox"/> a. yes	52	75.36*	* (.71 < p < .79) = 50
<input type="checkbox"/> b. no	15	21.74	
No response	2	2.90	

6. How often have parents, teachers or coaches complained about the lack of treatment and care of athletic injuries received by athletes and students? Please check the most appropriate response.

	F	%
<input type="checkbox"/> a. never	28	40.58
<input type="checkbox"/> b. occasionally	38	55.07
<input type="checkbox"/> c. frequently	2	2.90
No response	1	1.45

7. Do you believe that a certification program for athletic trainers at a state university is needed and would be beneficial to your region?

	F	%	
<input type="checkbox"/> a. yes	56	81.16*	* (.78 < p < .84) = .50
<input type="checkbox"/> b. no	10	14.49	
No response	3	4.35	

8. Is there anyone presently on your faculty who would be interested in obtaining athletic training certification?

	F	%	
<input type="checkbox"/> a. yes	23	33.33*	* (.29 < p < .37) = 50
<input type="checkbox"/> b. no	28	40.58	
No response	18	26.09	

- 8(A). If the answer is "yes," in your opinion what modes of instruction would be most suitable for obtaining certification? Please rank the following choices by numbering them 1-5, number 1 being the highest rank.

- ☐ a. weekend classes
☐ b. night classes
☐ c. summer school classes
☐ d. home study classes
☐ e. other _____ (please specify)

X(569)-(17)

a. 46 = 2.79 MRV
 b. 39 = 2.29 MRV
 c. 40 = 2.35 MRV

d. 45 = 2.65 MRV
 e. 85 = 5.00 MRV

a. 0
 b. 4
 c. 3

No of checks
 d. 1
 e. 0

9. Is there someone designated to provide any type of care and supervision concerning sport-related injuries at all athletic contests sponsored by your school?

	F	%
<input type="checkbox"/> a. never	9	13.04
<input type="checkbox"/> b. occasionally	13	18.84
<input type="checkbox"/> c. frequently	19	27.54
<input type="checkbox"/> d. always	24	34.78
No response	4	5.80

- 9(A). If the answer is "never," at which of the following athletic contests is someone available? Please check the most appropriate answer(s).

	F	%
<input type="checkbox"/> a. football	8	88.89
<input type="checkbox"/> b. basketball	2	22.22
<input type="checkbox"/> c. baseball	0	.00
<input type="checkbox"/> d. wrestling	0	.00
<input type="checkbox"/> e. tennis	0	.00
<input type="checkbox"/> f. other _____	1	11.11 (please specify)

10. Is there someone at your school designated to provide any type of care and supervision concerning sports-related injuries at practice sessions?

	F	%
<input type="checkbox"/> a. yes	52	75.36
<input type="checkbox"/> b. no	17	24.64

- 10(A). If the answer is "yes," indicate by position who is so designated?

	F	%
<input type="checkbox"/> a. coach	47	90.38
<input type="checkbox"/> b. physician	0	00.00
<input type="checkbox"/> c. paramedic	0	00.00
<input type="checkbox"/> d. certified athletic trainer	1	1.92
<input type="checkbox"/> e. chiropractor	0	00.00
<input type="checkbox"/> f. other _____		(please specify)

11. In the event of an injury, who determines whether or not a player is able to return to competition? Please check the most appropriate response.

	F	%
<input type="checkbox"/> a. coach	30	43.48
<input type="checkbox"/> b. physician	54	78.27
<input type="checkbox"/> c. paramedic	1	1.45
<input type="checkbox"/> d. certified athletic trainer	0	.00
<input type="checkbox"/> e. chiropractor	0	.00
<input type="checkbox"/> f. student trainer	0	.00
<input type="checkbox"/> g. other _____		(please specify)

g. (other) 1 1.45

12. If a player is injured during a practice session or athletic contest at your school, approximately how far would you have to transport the injured participant to receive proper care? Please check the most appropriate answer.

	F	%
<u> </u> a. 1 mile or less	27	39.13
<u> </u> b. 2 to 4 miles	16	23.19
<u> </u> d. 5 to 7 miles	12	17.39
<u> </u> e. beyond 10 miles	6	8.70 (please specify)
No response	8	11.59

13. If a player is injured during a practice session or contest at your school, approximately how long would it take to transport the injured participant to receive proper care? Please check the most appropriate answer.

	F	%
<u> </u> a. 5 to 10 minutes	32	46.38
<u> </u> b. 10 to 15 minutes	15	21.74
<u> </u> c. 15 to 20 minutes	11	15.94
<u> </u> d. 20 to 25 minutes	6	8.70
<u> </u> e. 25 to 30 minutes	4	5.80
<u> </u> f. more than 30 minutes	1	1.45 (please specify)

14. Does your school have an intramural program needing the services of a certified athletic trainer?

	F	%
<u> </u> a. yes	16	23.19
<u> </u> b. no	52	75.36
No response	1	1.45

- 14(A). If the answer is "yes," approximately how many injuries occur during a school year in the intramural program?

	F	%
<u> </u> a. 1 to 5	9	56.25
<u> </u> b. 6 to 10	4	25.00
<u> </u> c. 11 to 15	1	6.25
<u> </u> d. 16 to 20	0	0.00
<u> </u> e. other	2	12.50 (please specify)

15. Approximately how many injuries occur during a school year in the entire interscholastic athletic program?

	F	%
<u> </u> a. 1 to 5	10	14.49
<u> </u> b. 6 to 10	17	24.64
<u> </u> c. 11 to 15	17	24.64
<u> </u> d. 16 to 20	15	21.74
<u> </u> e. other	8	11.59 (please specify)
No response	2	2.90

16. Do you know of any graduating students who might be interested in becoming a certified athletic trainer?

	F	%	
<u> </u> a. yes	13	18.84*	* (.16<p<.22) = 50
<u> </u> b. no	54	78.26	
No response	2	2.90	

16(A). If the answer is "yes," would this be his or her:

	F	%
<u> </u> a. primary career	6	46.15
<u> </u> b. avocation (secondary career)	7	53.85
No response	3	

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