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Effects of the process of accreditation on undergraduate athletic training education programs

John Rodney Poindexter
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**EFFECTS OF THE PROCESS OF ACCREDITATION
ON UNDERGRADUATE ATHLETIC
TRAINING EDUCATION
PROGRAMS**

by

John Rodney Poindexter

**A dissertation submitted in partial fulfillment
of the requirements for the degree of**

Doctor of Education

in

Education Administration and Higher Education

**Department of Education Administration and Higher Education
University of Nevada, Las Vegas
August, 1995**

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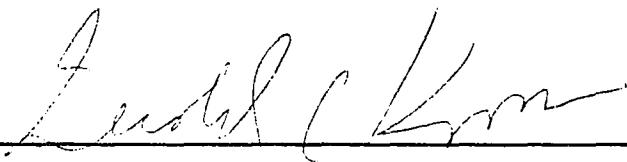
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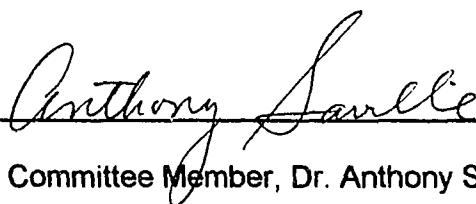
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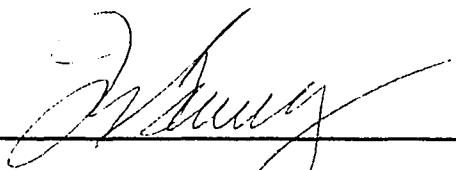
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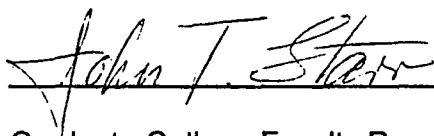
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ABSTRACT

The Commission on Accreditation of Allied Health Education Programs first accredited the profession of athletic training in 1994. Athletic Training was the allied health field devoted to the prevention and care of athletic injuries. The purpose of this study was to determine the effects of the Commission on Accreditation of Allied Health Education Programs' accreditation process on the curriculum, finances, enrollment, and faculty of National Athletic Trainers' Association approved undergraduate athletic training education programs.

The effects of the process of accreditation were examined by a survey questionnaire completed by the program directors of the accredited institutions. The survey questionnaire requested information from the academic year prior to accreditation and after accreditation.

The results of the study showed that accreditation had a minimal effect on the curriculum, finances, enrollment, and faculty. The primary benefits were perceived to be in improved academic status, recognition, and communication with the institutions own administration.

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LIST OF ACRONYMS

The following is a list of acronyms used in this study:

AA	Anesthesiologist Assistant
AAOS	American Academy of Orthopaedic Surgeons
AAHPER	American Alliance of Health, Physical Education, and Recreation
AAHPERD	American Alliance of Health, Physical Education, Recreation and Dance
AC-AOTA	Accreditation Committee-American Occupational Therapy Association
AC-PE	Accreditation Committee-Perfusion Education
AMA	American Medical Association
AOSSM	American Orthopaedic Society for Sports Medicine
ARC-AA	Accreditation Review Committee on Education for the Anesthesiologist's Assistant
ARC-MI	Accreditation Review Committee for the Medical Illustrator
ARC-PA	Accreditation Review Committee on Education for the Physician Assistant
ARC-ST	Accreditation Review Committee on Education for the Surgical Technologist
APTA	American Physical Therapy Association
ASPA	Association of Specialized and Professional Accreditors
AT	Athletic Trainer
ATC	Certified Athletic Trainer
ATCs	Certified Athletic Trainers
BOC	Board of Certification
CAAHEP	Commission for Accreditation of Allied Health Education Programs
CAHEA	Committee on Allied Health Education and Accreditation
CAUR	Council on Accreditation and Unit Recognition
CME	Council on Medical Education
COA	Committee on Accreditation
COE	Council on Education
COPA	Council on Postsecondary Accreditation
CMAS	Commission on the Medical Aspects of Sport
CPR	Cardiopulmonary Resuscitation
CPRC	Cytotechnology Programs Review Committee
CRB	Curriculum Review Board
CSI	Committee for Sports Injuries

CVT	Cardiovascular Technologist
CYTO	Cytotechnologist
DAMPS	Department of Allied Medical Professions and Services
DMS	Diagnostic Medical Sonographer
EGG-T	Electroneurodiagnostic Technologist
EMT-P	Emergency Medical Technologist-Paramedic
JRC-AT	Joint Review Committee on Education in Athletic Training
JRC-CVT	Joint Review Committee on Education in Cardiovascular Technology
JRC-DMS	Joint Review Committee on Education in Diagnostic Medical Sonography
JRC-EEG	Joint Review Committee on Education in Electroneurodiagnostic Technology
JRC-EMT-P	Joint Review Committee on Educational Programs for the EMT- Paramedic
JRC-OMP	Joint Review Committee for Ophthalmic Medical Personnel
HT/HTL	Histologic Technician/Technologist
JRCERT	Joint Review Committee on Education of Radiological Technology
JRCRTE	Joint Review Committee For Respiratory Therapy Education
JRC/NMT	Joint Review Committee on Educational Programs in Nuclear Medicine Technology
NAIA	National Association of Intercollegiate Athletics
NATA	National Athletic Trainers Association
NATABOC	National Athletic Trainers' Association Board of Certification
NATAPEC	National Athletic Trainers' Association Professional Education Committee
NCAA	National Collegiate Athletic Association
NCATE	National Council for Accreditation of Teacher Education
NCHCA	National Commission for Health Certification Association
NFSHSA	National Federation of State High School Associations
NOCA	National Organization of Competency Assurance
MA	Medical Assistant
MI	Medical Illustrator
MLT-AD	Medical Laboratory Technician-Associate Degree
MLT-C	Medical Laboratory Technician-Certificate
MRA	Medical Record Administrator
MT	Medical Technologist
NEA	National Association of Education
NMT	Nuclear Medicine Technologist
OT	Occupational Therapist
OTA	Occupational Therapy Assistant
OMT	Ophthalmic Medical Technician/Technologist
PEC	Professional Education Committee
PERF	Perfusionist
PA	Physician Assistant

RAD	Radiographer
RADTT	Radiation Therapy Technologist
REST	Respiratory Therapist
RESTT	Respiratory Therapy Technician
SBB	Specialist in Blood Banks
SBBT	Specialist in Blood Bank Technology
SA	Surgeon's Assistant
SASHEP	Study of Accreditation of Selected Health Education Programs
ST	Surgical Technologist
WASC	Western Association of Schools and Colleges

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CHAPTER 1

INTRODUCTION

The prevention, care, treatment, and rehabilitation of athletic injuries have been considered the domain of the athletic trainer (Arnheim & Prentice, 1993). The field of athletic training was created as a result of the need for someone to care for the injuries athletes incurred while participating in sports. Occasionally an injured athlete would remain with the team to help care for the other players. The skills and techniques these early athletic trainers developed were passed on to others serving apprenticeships.

The National Athletic Trainers' Association (NATA) was founded in 1950 to promote the profession of athletic training. The NATA appointed a committee in 1956 to develop an athletic trainer preparation program (Bailey, 1972). In 1969, the NATA developed a national certification process that established minimum standards for entry-level athletic trainers. The certification process required perspective athletic trainers to serve an internship of at least 1,800 hours under the direct supervision of a Certified Athletic Trainer.

Thurmond (1968) proposed that high schools with sports programs employ a qualified athletic trainer. This recommendation was based on the fact that young athletes were thought to be more susceptible to injury and needed the proper emergency care of a well-trained professional. The schools could

have reduced its risk of liability for negligent acts, involving the improper treatment of injured players, by hiring a skilled athletic trainer.

The Professional Education Committee of the NATA first approved athletic training education programs in the United States in 1969 (NATA, 1986). This approval process included the completion of a self-study by the institution, an evaluation by a site visitation team, and a review by the Professional Education Committee.

A prospective athletic trainer could become eligible to apply to take the national certification examination and become a Certified Athletic Trainer by completing an approved curriculum, or by serving an internship (NATABOC, 1983). Graduation from an approved program required the completion of 800 hours of clinical experience, substantially less than the 1500 hours required by the internship route (NATABOC, 1985).

In 1966, the American Medical Association's House of Delegates recognized the role of the athletic trainer as an integral part of the sports medicine team. The American Orthopaedic Society for Sports Medicine was established from the American Academy of Orthopaedic Surgeons in 1972 (AAOS, 1991). Its mission was to promote the care of athletic injuries and the relationship of orthopaedic surgeons with the sports medicine field.

The Committee on Allied Health Education and Accreditation (CAHEA) was founded by the AMA in 1976, to evaluate and accredit allied health occupations. The American Medical Association recognized the field of athletic training as an allied health occupation in 1990 (CAHEA, 1991). This recognition

allowed CAHEA to become the agency responsible for the accreditation of entry-level athletic training education programs in 1991. A college or university seeking accreditation was required to use the *Essentials and Guidelines for an Accredited Education Program for an Athletic Trainer*, to guide the development of its curriculum (CAHEA, 1991).

A program seeking accreditation had to formally apply to CAHEA to initiate the process of accreditation. The college was required to demonstrate how its program met the minimum standards established by the Joint Review Committee on Educational Programs in Athletic Training.

CAHEA was succeeded as the primary allied health accrediting agency by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on July 1, 1994. CAAHEP would continue to have the financial backing of the AMA for its first three years of operation, then it would become a fully self-supporting organization.

Problem Statement

The purpose of this study was to determine the effects of the Commission on Accreditation of Allied Health Education Programs' accreditation process on the curriculum, finances, enrollment, and faculty of National Athletic Trainers' Association approved undergraduate athletic training education programs.

Sub Problems

The following questions served as a basis for the investigation of this problem:

1. What effect did the process of accreditation have on the curriculum?
2. What effect did the accreditation process have on the finances of the athletic training education program?
3. What effect did the accreditation process have on enrollment in the athletic training education program?
4. How did the accreditation process effect the number of Certified Athletic Trainers on the faculty?
5. What benefits did the program directors perceive accreditation provided for their institution?
6. How did the program directors justify the time and expense necessary to apply for accreditation?
7. What factors other than the accreditation process did the program directors perceive resulted in the changes to their programs?
8. What did the program directors suggest to improve the process of accreditation?

Definition of Terms

Accreditation is the process of peer review that evaluates a specialized program and determines if it satisfies established minimum standards (Blanch, 1959; Orleans, 1975). The process of accreditation involves application for

accreditation, completion of a self-study (Kells, 1983), an on-site visit, and a review by committee members (Barak & Brier, 1990; Young, Chambers, & Kells, 1983).

Curriculum is a program of study that directly leads to a degree in athletic training. This includes all classes required specifically for the athletic training major, or the equivalent of a major.

Finances are the amount of money allocated for Certified Athletic Trainers involved in the administration of the athletic training education program, instruction of the athletic training classes, the cost of the accreditation process, and the cost of instructional equipment and supplies directly related to the educational program. It does not include non-instructional staff, non-athletic training faculty, or equipment and supplies required for the operation of the intercollegiate athletic training service program.

Enrollment is the number of students actually accepted as declared majors in the Athletic Training Education Program

Faculty is only those Certified Athletic Trainers required to direct, teach, or serve as clinical instructors in the programs athletic training classes.

Delimitations

This study was limited to an analysis of the effects of the CAAHEP accreditation process on NATA approved undergraduate athletic training educational programs. All CAAHEP accredited undergraduate athletic training programs that were NATA approved prior to its accreditation were included in

the study. Four programs that were not NATA approved prior to its accreditation and not included in this study were:

1. Barry University, Miami Shores, Florida
2. Duquesne University, Pittsburgh, Pennsylvania
3. High Point University, High Point, North Carolina
4. The University of Mary, Bismarck, North Dakota

Fourteen NATA approved programs had been accredited by CAAHEP. These programs were listed as approved by the Professional Education Committee of the NATA prior to its accreditation by CAAHEP. They were part of a college or university that offered an academic major in athletic training, or the equivalent of an academic major, and had satisfied all of the requirements to become an NATA approved undergraduate athletic training education program.

Need for the Study

Over 5 million people participated in sports at American schools and colleges during the 1975-76 school year, and a million of those athletes were injured (Roy & Irvin, 1983). Most colleges had a Certified Athletic Trainers to care for those injuries, unfortunately many high schools did not have a qualified person to treat those injuries.

Kelley and Miller (1976) found that 85% of the people who served as athletic trainers for junior and senior high schools did not meet minimum qualification for the position. Their lack of preparation endangered the health of their athletes. Pennsylvania State University had established a program of study

to develop the knowledge and skills of those responsible to care for high school athletic injuries.

Slagle (1978) documented a need for the proper care of injuries during summer sports camps. Injuries were treated on 28.5% of the camp participants. Muscle strains accounted for 35% of the injuries sustained at the camp, while 26% were classified as sprains, and 18% were recorded as contusions. The majority of the injuries occurred to the ankle and knee joints. Groin and shoulder injuries were ranked as the second most commonly injured areas. The study recommended that the summer camps should have employed the services of an athletic trainer.

A 1978, study showed a lack of awareness of athletic trainers by coaches, athletes, parents, and the general public (Bell, 1978). California State University, Sacramento, football players and their parents; NATA District 8 athletic trainers; and Far West Conference football coaches participated in the study. Results found a vast difference in the awareness of athletic training by people involved in intercollegiate athletics and the general public. Athletic trainers were encouraged to conduct educational programs for players' parents and their local communities.

Wrenn and Ambrose (1980) concluded that parents of Maryland high school athletes were not aware of the profession of athletic training. They also found that only half of the schools kept athletic injury records. The study showed that 86% the schools wanted to employ an athletic trainer. They recommended having emergency personnel at practices and games, better

instruction for coaches in the care of athletic injuries, hiring qualified athletic trainers, and improving college athletic training classes for coaches. New programs were encouraged to be developed to improve the skills of the people treating athletic injuries in the state of Maryland.

Athletic trainers were prompted by Kegerreis (1980) to conduct more research and to promote the publication of articles concerning the prevention and care of athletic injuries. Prospective students were found to have little access to documentation concerning the techniques used in the field of athletic training. The NATA was encouraged to sponsor research efforts of its member to enhance the profession.

According to Rowe and Robertson (1986), Alabama high school athletes received improper care 70% of the time when they were treated by 73% of the people designated as athletic trainers by the schools. The study examined injury records of high schools and tested the knowledge of those serving as athletic trainers. The authors recommended that each high school should have employed a Certified Athletic Trainer to care for its athletic injuries.

The National High School Injury Registry reported 636,000 football injuries in 1986 (Powell, 1987). They reported that twice as many injuries resulted from practice than from games. The study found that 18% of all high school athletes had suffered injuries. Each team averaged at least one hospitalization and one surgery as a result of these injuries.

Michigan high school superintendents believed that employing an athletic trainer reduced the risk of legal liability, but they were not aware of the

difference between a Certified Athletic Trainer and non-certified athletic trainer (Ray, 1987). Superintendents did recognize the role of the athletic trainer and their qualifications for treating sports injuries. This study recommended that the NATA public education campaign should target school superintendents for education regarding the advantages of hiring Certified Athletic Trainers.

Stopka and Kaiser (1988) stated that less than 10% of all high schools employed athletic trainers to care for the over 600,000 football injuries that occurred that year. They found an average of one Certified Athletic Trainer for every 5,500 athletes involved in high school athletics. Solutions recommended included hiring full-time athletic trainers, district athletic trainers, permanent substitute teacher athletic trainers, assistant athletic director athletic trainers, part-time athletic trainers, contracted athletic trainers, graduate assistant athletic trainers, or teacher athletic trainers.

The benefits for a school hiring an athletic trainer included providing better medical care for its athletes. Injuries could have been reduced by using safer equipment, sound education, and proper planning. The services of a Certified Athletic Trainer at all practices and games would have provided for the immediate first-aid required for injured athletes. The team physician could have relied on a qualified athletic trainer to provide the proper treatment for athletic injuries when the physician was unavailable.

Institutions employing Certified Athletic Trainers could have reduced the risk of legal liability. The dangers inherent to sports have established a legal duty for providing proper care for athletic injuries. Having a well-trained

professional on campus to treat athletic injuries has been considered the first step in the process of protecting the health of the participants.

Athletic trainers could have improved the athletic training education on the campus. Student athletic trainer programs and courses in the care and prevention of athletic injuries could have been instituted. Many professional athletic trainer's careers began as high school student athletic trainers.

The availability of medical care for Michigan interscholastic athletics was studied in 1989 (Lindaman, 1992). Athletic directors reported that 70% of the athletic trainers employed were certified, but 78% of the varsity teams did not have access to their services. Of the schools with athletic trainers, 39% of them were volunteers. The qualifications of the people serving as athletic trainers were increasing, but the majority of the athletes did not have the advantage of their services.

Whieldon and Cerney (1990) documented that high school student athletes recovered more quickly from injuries when athletic training services were readily available. Most injured athletes returned to full competition in less than 21 days following an injury. The high incidence of injury and the impracticality of having a physician present at practices made the employment of Certified Athletic Trainers a necessity for high school sports.

Rowe and Miller (1991) found that many athletic programs had not provided adequate medical care for its athletes. Coaches were often required to provide emergency medical care for their players. The rapid growth of athletic

training had not eliminated the high risk of legal liability that institutions had experienced by not employing qualified personnel to care for its injured athletes.

Private schools in Hawaii were the only high schools in the state to have access to a Certified Athletic Trainer in 1991 (Buxton, McCarthy, & Ho, 1993). They found that only 8% of all Hawaiian high schools had a Certified Athletic Trainer. Of the other schools, 28% employed a non-certified person to serve as the athletic trainer, and 64% had assigned a coach to care for its athletic injuries. Of the designated athletic trainers, only 44% had any first-aid training, and 29% had no formal instruction in the prevention and care of athletic injuries. The study concluded that the state was in great need of a system to improve the health care of its athletes.

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) first accredited athletic training education programs in 1994. The accreditation process for educational programs in athletic training was just beginning. CAAHEP evolved from the American Medical Association's role in the development of specialized accreditation programs for the allied health occupations. The NATA Board of Certification continued to allow students from non-accredited internship programs to become Certified Athletic Trainers.

The accreditation of specialized programs had been criticized by the Council on Postsecondary Accreditation as self-serving (COPA, 1986). Each association set its own standards. Teachers controlled the standards for teacher education and nurses established the standards for nurses.

The approved curriculums for undergraduate athletic training education programs had been based on guidelines established by the Professional Education Committee of the NATA. The essentials established in 1991 by the Joint Review Committee on Educational Programs in Athletic Training created new standards for the accreditation of athletic training programs. Curriculums desiring to pursue CAAHEP accreditation may have had to be adapted to reflect these new requirements.

Accreditation may have had an impact on the finances of the college or university. The process required a one time \$200 application fee, a \$200 annual institutional fee, a \$250 annual program fee, and the expenses for the site visitation team, including their travel, meals, and lodging. Athletic training facilities may have had to be expanded or upgraded. Additional athletic training equipment and supplies may have needed to be purchased. Funding for additional athletic training faculty may have been required.

These costs may have been offset by increased enrollment in the program. Students may have selected the college based on the fact that it offered a CAAHEP accredited program in athletic training. This may have resulted in an increase in the school's revenue.

An increase in student enrollment may have required the employment of additional faculty to teach in the program. These positions may have been filled by full or part-time personnel. The impact on the college's salaries may or may not have been offset by an increase in enrollment.

The process may have provided for better trained professionals in the field of athletic training. The improvements to the programs may have resulted in better medical care for the athletes that participated in athletic programs across the country.

CAAHEP replaced what had been one of the largest specialized accrediting agencies in America. The American Medical Association's recognition of athletic training as an allied health occupation, and its accreditation, should have attracted better quality students to the field. This process may have increased the academic standing of the profession. The process of accreditation should have had an impact on the profession. This study attempted to define the exact nature and extent of that impact on the educational programs that had completed this process.

Conceptual Rationale

The rationale for accreditation was to increase the quality of education in America. The absence of government control over education allowed independent associations to establish voluntary regulations and controls. The literature showed that accreditation had developed minimum standards for institutions, and evaluated the schools attempt to achieve its stated mission.

Specialized accreditation evolved to evaluate specific fields of study. A review of literature on professions where high standards were expected from their peers and the public, showed an improvement in their quality. Self-

regulation of the educational process was necessary to insure their continued high status in the community.

The development of entrance examinations, proposed educational competencies, and suggested curriculums by professional organizations led to the establishment of national standards. A process of self-study, peer review, and eventual recognition by an association created our present system of accreditation.

Concerns regarding the lack of outside involvement in the process of accreditation prompted many organizations to allow its accrediting boards to distance themselves from its founders and become self-supporting agencies. Other professions looked to existing agencies to provide for accreditation of its members. State regulations often required graduation from programs that were accredited.

The Council on Postsecondary Accreditation (1986) stated that specialized accreditation could not guarantee every aspect of a program. Accreditation only evaluated the individual fields of study, based on established minimum standards. Individual students, faculty, or classes may have varied greatly. Only the overall quality of a program could have been assured through the accreditation process.

The process of specialized accreditation had provided for competent evaluators, national comparisons, student eligibility to enter the profession, self-analysis, and new perspectives (CAHEA, 1991). Accreditation validated that the

institution had met existing standards, and had the resources to continue to provide a quality education.

The primary purpose of the CAHEA (1991) accreditation process was to assess quality and encourage improvement in educational programs. The accreditation process had provided benefits for the students, the institutions, and society.

Students were better able to select schools from published lists of accredited institutions. They could be assured that these institutions had met established minimum standards and that they could have transferred credits from one accredited institution to another accredited school.

Institutions were shielded from questionable educational doctrines. Faculty were guided through a programmed evaluation process. Improvement was encouraged by a comparison of programs to established national standards.

The process of accreditation could have effected many aspects of an institution's programs. This study concentrated on the effects of accreditation on the curriculum, finances, enrollment and faculty. The impact on student employment potential, career selection, or student perceptions were not a part of this study.

Curriculum has been the foundation of all academic majors. The choice of courses included in a program of study have traditionally been the major focus of any evaluation. Course content and the number of credit hours required for graduation were listed in university catalogs. Institutional review was usually required for revision of curriculums.

The financial impact on the college has been a major area of concern in the curriculum decision-making process. Additions or deletions of programs were frequently based on its potential economic impact to the university. The costs of additional faculty, new equipment, and necessary supplies may have prevented program development. New majors were created because of its potential to produce income for the institution.

The enrollment of students in a program has determined the continuation of some academic fields of study. Increased student enrollment in a particular major has encouraged the allocations of additional college resources. A decline in enrollment has resulted in the elimination of entire departments.

Faculty have traditionally been the core of a field of study. The faculty allocation to a department was based on a formula that calculated the number of full-time equivalent students. Salaries of faculty members have historically composed major portions of university budgets. The number of additional faculty members required to operate a program may have greatly influenced the costs of the program.

CAAHEP accreditation should have had an impact on the NATA approved athletic training education programs that have completed the process. This study was designed to explore the program directors' perceptions of changes that occurred to the curriculum, finances, enrollment, and faculty of their programs.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

This study examined the effects of the Commission on Accreditation of Allied Health Education Programs' (CAAHEP) process of accreditation on the curriculum, finances, enrollment, and faculty of National Athletic Trainers' Association (NATA) approved undergraduate athletic training education programs. Athletic training is the allied health field responsible for the prevention and care of athletic injuries.

A review of the literature did not provide significant information regarding the effects of the process of accreditation on athletic training education programs. The literature did discuss the development of institutional and specialized accreditation, the history of allied health accreditation, and the development of athletic training educational programs.

Development of Accreditation

Most foreign countries established government ministries to accredit or approve its educational institutions (Miller, 1971). The United States Constitution did not expressly give the national government powers over

education. The Bill of Rights left the responsibility for education in the hands of the states since it was not mentioned in the Constitution (Sniegoski, 1988). The foundation of many American higher education institutions by religious groups limited the growth state regulation.

The Congress did manage to become involved with education by the creation of new legislation promoting or supporting schools and colleges including (Koerner, 1968; Sniegoski, 1987):

1. The Land Ordinance of 1785 (Continental Congress)
2. The Morrill Land Grant Act of 1862
3. The Department of Education in 1867
3. The Smith Hughes Act of 1917
4. The Servicemen's Readjustment Act of 1944
5. The National Defense Education Act of 1958
6. The Manpower Development Act of 1963
7. The Vocational Educational Act of 1963
8. The Economic Opportunity Act of 1964
9. The Higher Education Act of 1965.

The University of Michigan, the American Association of University Women, The University Senate of the Methodist Episcopal Church, The Illinois Board of Health, and the Board of Regents of the State of New York all claim to be the first to institute accreditation (Selden, 1971). Young, Chambers, and Kells (1963) credit the National Association of State Universities for first establishing institutional accreditation in the United States in 1906..

The six regional accrediting agencies developed across the United States to accredit institutions (Miller, 1971). Institutional accreditation was established to show that the school or college met the minimum standards and was serving its stated mission (Koerner, 1968; WASC, 1993). The six regional accrediting agencies in the United States were:

1. Middle States Association of Colleges and Schools

Delaware

District of Columbia

Maryland

New Jersey

New York

Pennsylvania

Puerto Rico

Virgin Islands

2. New England Association of Schools and Colleges

Connecticut

Maine

Massachusetts

New Hampshire

Rhode Island

Vermont

3. North Central Association of Colleges and Schools

Arizona

Arkansas

Colorado

Illinois

Indiana

Iowa

Kansas

Michigan

Minnesota

Missouri

Nebraska

New Mexico

North Dakota

Ohio

Oklahoma

South Dakota

West Virginia

Wisconsin

Wyoming

4. Northwestern Association of Schools and Colleges

Alaska

Idaho

Montana

Nevada

Oregon

Utah

Washington

5. Southern Association of Colleges and Schools

Alabama

Florida

Georgia

Kentucky

Louisiana

Mississippi

North Carolina

South Carolina

Tennessee

Texas

Virginia

6. Western Association of Schools and Colleges

(WASC, 1993)

California

American Samoa

Guam

Hawaii

Commonwealth of Northern Marianas

Trust Territory of the Pacific Islands.

Specialized accreditation was established to promote quality education and minimum standards in individual programs within the institutions. The American Medical Association, established in 1847, created a Committee on Medical Education that played a significant role in the development of specialized accrediting agencies. The act of Congress in 1887, that created of the Interstate Commerce Commission, the 1905 AMA Congress on Medical Education, and the endowment of the Carnegie Foundation for the Advancement of Teaching all played a major role in the promotion of accreditation (Selden, 1971).

Berridge studied the need for accreditation of physical education programs (1948). Educational programs for physical education teachers did not have uniform standards. Objectives and mission statements were encouraged to be written by all physical education programs. The procedures for accreditation were well written and highly organized, but the idea for the development of physical education accreditation never became a reality.

The National Commission of Accrediting, founded in 1949, and the United States Commissioner of Education published annual lists in 1952, of recognized accrediting agencies (Miller, 1971). The accrediting agencies were voluntary and stressed a review process that was conducted by peers.

The National Council for Accreditation of Teacher Education (NCATE) was founded in 1952 (McGee, 1995). NCATE was the specialized accrediting body responsible for the accreditation of teacher preparation programs and its members have produced 75% to 80% of the nations new teachers (Koerner, 1968). Koerner claimed that NCATE had too much power and had accredited many mediocre programs. Koerner believed that the minimum standards were set so low that it made the process of accreditation meaningless. He stated that the standards were often unspecified and indiscriminate. The process did not rank the schools or colleges. He also claimed that the association played power politics and was controlled by the National Association of Education (NEA).

The Office of Education was also involved in publishing standards for teacher education, called the Proposed Standards for State Approval of Teacher Education (Koerner, 1968). The American Association of Colleges for Teacher Education produced the *Standards and Evaluative Criteria for the Accreditation of Teacher Education*. In 1967, Phi Delta Kappa announced its plan for teacher education, *Improving Teacher Education in the United States*.

MacDonald (1965) discussed the standards for accreditation in collegiate nursing programs. Accreditation procedures were developed to establish minimum standards and to protect the public (Ozimek, 1974). This study recommended the reorganization of nursing accreditation to reduce costs and improve quality.

The Council on Postsecondary Accreditation (COPA) was established in 1974, by the merging of the National Commission on Accreditation and the

Federation of Regional Accrediting Commissions of Higher Education. COPA's role was to supervise the voluntary accreditation of institutions of higher education (Weithaus, 1993b).

Litwack (1985) studied the attitudes toward specialized accreditation of nursing program directors and administrators. She found a need for cooperation among accrediting agencies to avoid duplication of accrediting reports and visits.

The perceptions of administrators of undergraduate nursing programs regarding the National League of Nursing accreditation were studied by Hart (1985). This study found that accreditation was valuable to the students, but that the costs were high and peer evaluators were often unqualified.

Hagerty and Stark (1989) compared the educational accreditation standards of ten professional preparation programs. They explored the perceptions of faculty members concerning the outcomes expected from their students in relation to the accreditation standards. They found that most agencies did not include student outcomes as a part of its evaluation process. They suggested that professional competencies and professional attitudes should be evaluated by the accrediting agency.

Dinham and Evans (1991) addressed quality in professional schools. They found that schools should have stressed the learning of general and specialized knowledge, and the development of professional competencies. They felt that accreditation did not provide the entire assessment procedure for evaluating student learning and that they should have focused on general

learning. Accreditation should have included more comprehensive data and have been combined with the assessment process.

A history of the first fifty years of allied health education and accreditation discussed the role that the American Medical Association played in developing standards for the field of occupational therapy (Vandemann, 1992). The study found that the AMA had a considerable influence on specialized accreditation in the allied health field. Considerable attention was given to avoiding duplication and containing the cost of the accreditation process. They also worked to improve the training of on-site surveyors and unsuccessfully tried to fight the American Physical Therapy Association's (APTA) choice to leave CAHEA and establish its own accrediting body in 1976.

The Reauthorization of the Higher Education Act of 1992 and other federal programs relied on voluntary accreditation to help schools comply with the Department of Education eligibility. The government only recognized programs for funding that were accredited by agencies approved by the Secretary of Education. The Joint Review Committee on Educational Programs in Athletic Training does not qualify for recognition by the Department of Education. Schools housing an accredited athletic training educational program must also be accredited by a regional accrediting association.

The Council on Postsecondary Accreditation (COPA) dissolved as the body for recognizing accrediting organizations on December 1, 1993 (Weithaus, 1993b). The Association of Specialized and Professional Accreditors (ASPA)

was expected to replace COPA as the organization to recognize accrediting agencies.

Bruhn (1993) called for the end to specialized accreditation of allied health education programs and the inclusion of outcome assessment as a part of institutional accreditation. This would have reduced the duplication of paperwork and the total cost of the accreditation process.

McGee (1995) documented the impact of voluntary forfeiture of National Council for Accreditation of Teacher Education (NCATE) accreditation by two institutions. The attitudes of the faculty members expressed a concern for increased workloads and a reduction in benefits for the students. A lack of involvement in the decision making process was the greatest concern by the faculty members. The process of NCATE accreditation could have been improved by a reduction in the paperwork and better training for the site visitors.

A History of CAAHEP

The Council on Medical Education (CME) was established in 1904, by the American Medical Association (AMA) to ensure the quality of medical education (CAHEA, 1991). The CME rated medical schools, conducted inspections, and placed schools in classifications. In 1910, the AMA and the Carnegie Foundation produced the Flexner Report that described the state of medical education quality. Abraham Flexner and Dr. N. P. Colwell studied 155 medical schools and evaluated the schools based on its entrance requirements. The Flexner Report recommended a reduction in the number of medical schools by

120, to improve quality and restrict the number of physicians that they produced. The number of medical schools was reduced to 95 by 1915 (Selden, 1971).

The 1920's led the AMA to develop procedures for the inspection and certification of laboratories, specialized training programs, and practice facilities. The AMA helped establish accreditation for occupational therapy in 1933, medical technology in 1934, physical therapy in 1935, and medical record librarians in 1943. A review committee became the method of accreditation for each specialty (Selden, 1971).

In 1960, the AMA House of Delegates accepted a report that solidified the role of physicians in the accreditation process of allied health fields (Miller, 1971). They stated that the medical profession needed to promote the growth and development of related groups in order to protect the health of their patients.

The Department of Allied Medical Professions and Services, under the Division of Medical Education and within the Council on Medical Education, received funds from the AMA in 1967, to expand its role in development of specialized health care (Miller, 1971). This confirmed the commitment of the AMA to a collaborative approach to quality education in the medical profession. The reorganization of the department created an Advisory Committee on Education for the Allied Health Professions and Services.

The AMA Council on Health Manpower was created in 1969 to establish guidelines for accepting new health occupations for inclusion in the accrediting process (Miller, 1971). The Council on Health Manpower had to approve the

new specialty before the Council on Medical Education could consider the field for accreditation.

The Study of Accreditation of Selected Health Educational Programs (SASHEP) was conducted in 1971, to reduce the stress among those involved in allied health education programs (Miller, 1971). The role of the AMA in the individual allied health professional organization needed to be reviewed. The relationships with many organizations were strained, neglected, or in some cases completely ignored. The main value of accreditation was in its requirement for federal funding, state licensure, and the need to have graduated from an accredited program to qualify for entry-level examinations.

The main criticism of the process of accreditation was that it limited the number of graduates and controlled access to the professional fields. The involvement of the AMA in allied health education programs also raised issues of physician control of the entire medical industry. The SASHEP study recommended that an independent group should have been established to represent the broad interests of those involved in allied health educational program accreditation.

The AMA Council on Medical Education transferred the role of accrediting allied health fields to the Committee on Allied Health Education and Accreditation in 1976 (CAHEA, 1991). CAHEA established essentials and guidelines for the accreditation of 3,057 allied health programs with the cooperation of 27 individual professional organizations (Weithaus, 1993).

CAHEA (1991) was responsible for the accreditation of the following allied health fields:

Accreditation Committee-American Occupational Therapy
Association (AC-AOTA) 1935

Occupational Therapist (OT)

Occupational Therapist Assistant (OTA)

National Accrediting Agency for Clinical Laboratory Sciences
(NAACLS) 1936

Histotechnology Programs Review Committee

Histologic Technicians/Technologist (HT/HTL)

Medical Laboratory Technician Program Review Committee

Medical Laboratory Technician (Associate Degree)

(MLT-AD)

Medical Laboratory Technician (Certificate) (MLT-C)

Medical Technology Programs Review Committee

Medical Technologist (MT)

Council on Education (COE)--American Medical Records
Association 1943

Medical Record Administrator (MRA)

Medical Record Technician (MRT)

Joint Review Committee on Education of Radiological Technology
(JRCERT) 1944

Radiation Therapy Technologist (RADTT)

Radiographer (RAD)

Cytotechnology Programs Review Committee (CPRC) 1962

Cytotechnologist (CYTO)

Joint Review Committee for Respiratory Therapy Education
(JRCRTE) 1962

Respiratory Therapist (REST)

Respiratory Therapy Technicians (RESTT)

Curriculum Review Board (CRB)--American Association of Medical
Assistants, Endowment 1969

Medical Assistant (MA)

Joint Review Committee on Educational Programs in Nuclear
Medicine Technology (JRC/NMT) 1969

Nuclear Medicine Technologist (NMT)

Committee on Accreditation (COA) of SBB Schools 1971

Specialist in Blood Bank Technology (SBBT)

Accreditation Review Committee on Education for the Physician
Assistant (ARC-PA) 1971

Physician Assistant (PA)

Surgeon's Assistant (SA)

Accreditation Review Committee on Education for the Surgical
Technologist (ARC-ST) 1972

Surgical Technologist (ST)

Joint Review Committee on Education in Electroneurodiagnostic
Technology (JRC-EEG) 1973

Electroneurodiagnostic Technologist (EEG-T)

Joint Review Committee for Ophthalmic Medical Personnel (JRC-
OMP) 1975

Ophthalmic Medical Technician/Technologist (OMT)

Joint Review Committee on Educational Programs for the EMT-
Paramedic (JRC/EMT-P) 1978

Emergency Medical Technician-Paramedic (EMT-P)

Joint Review Committee on Education in Diagnostic Medical
Sonography (JRC-DMS) 1979

Diagnostic Medical Sonographer (DMS)

Accreditation Committee-Perfusion Education (AC-PE) 1980

Perfusionist (PERF)

Joint Review Committee on Education in Cardiovascular
Technology (JRC-CVT) 1985

Cardiovascular Technologist (CVT)

Accreditation Review Committee on Education for the
Anesthesiologist's Assistant (ARC-AA) 1987

Anesthesiologist's Assistant (AA)

Accreditation Review Committee for the Medical Illustrator

(ARC-MI) 1987

Medical Illustrator (MI)

Joint Review Committee on Education in Athletic Training

(JRC-AT) 1991

Athletic Trainer (AT).

In November of 1992, a task force was appointed to restructure CAHEA (Weithaus, 1993b). The Proposal for Establishment of the Commission on Accreditation of Allied Health Education Programs (CAAHEP) was released in 1993. The Commission on Accreditation of Allied Health Education Programs replaced CAHEA on July 1, 1994 (Weithaus, 1994). CAAHEP was required to gradually become a self-supporting agency. The American Medical Association was to continue to provide financial support for its first three years of operation.

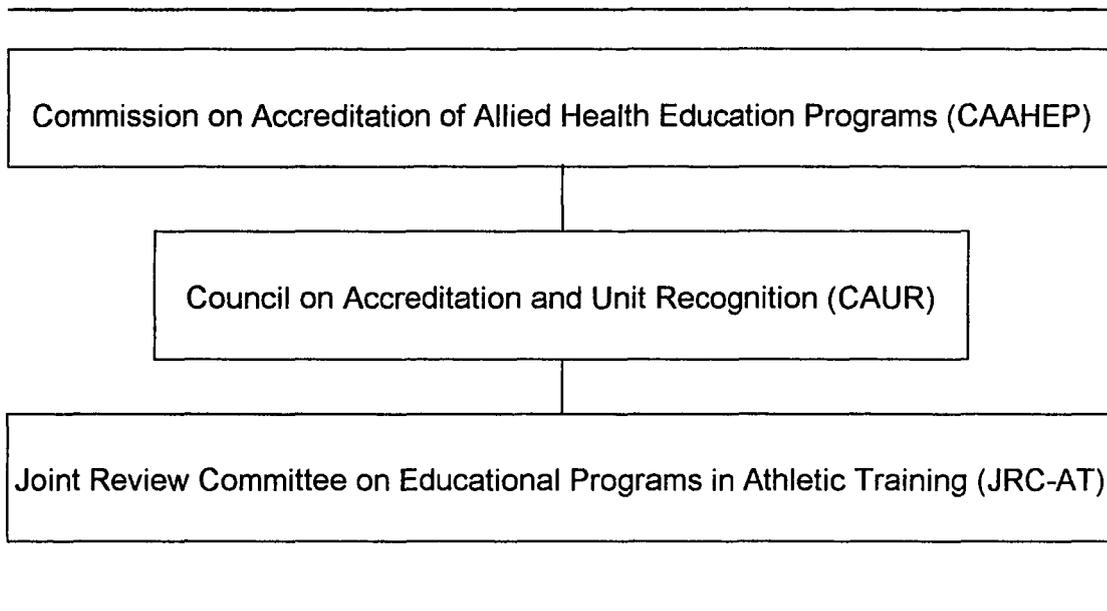
CAAHEP was designed to encourage entry-level allied health fields to participate in the process of accreditation (see Figure 1). An executive committee was created to implement the policies developed by CAAHEP. The Council on Unit Recognition was established to approve the actions of the committees and to award accreditation based on the recommendation of the committees (Weithaus, 1993b).

Health care changes in the near future are inevitable. The role of allied health accreditation may play a very important part of this reformation (Bezold, 1994). Many of the standards of allied health education may be imposed by new legislation (Longanecker, 1994). The pressures on higher education to

reduce spending and cut cost may have a detrimental effect on the process of accreditation (Broski, Willis, Elwood, 1994).

FIGURE 1

Organizational Chart for CAAHEP



Development of Athletic Training
Education Programs

The American Academy of Orthopaedic Surgeons (1991) reported that medical gymnastics or therapeutic exercises were used in Atharva-Veda, India as early as 800 to 1,000 BC. Herodicus, in the fifth century BC, was cited as the first sports physician and his student, Hippocrates wrote about the medical uses of exercise. Galen, in the second century, treated the gladiators and was reported to be the first team physician. Pergamum and Aurelianus both claimed

the benefits of exercise. Harkim Avicenna wrote about the use of modalities and exercises to treat injuries in the first century.

In 1854 Dr. Edward Hitchcock, Jr. became the first American team physician and was a professor of physical education at Amherst College (AAOS, 1991). He studied the anthropomorphic characteristics of his students and was considered as the father of American physical education.

The American Alliance of Health, Physical Education, and Recreation (AAHPER) promoted research on the benefits of exercise after its establishment in 1885 (AAOS, 1991). AAHPER became the American Alliance of Health, Physical Education, Recreation, and Dance (AAHPERD) in 1979. Its membership included many athletic trainers, and most physical education programs offered courses in the prevention and care of athletic injuries.

Hygiene des Sports by Weissbein in 1910, *The Encyclopedia of Sports* by Byles and Osborne in 1898, and the *Trainer's Bible* by Bilik in 1916, were reported as the first books on the prevention and treatment of athletic injuries (AAOS, 1891). The growth of American athletics was fostered by the development of the Amateur Athletic Union in 1888, and the Collegiate Athletic Association of the United States, currently known as the National Collegiate Athletic Association (NCAA), in 1906. The National Federation of State High School Associations (NFSHSA) and the National Association of Intercollegiate Athletics (NAIA) were both founded in 1920.

The NCAA, the NAIA, and the NFSHSA members all needed someone to care for its injured athletes. Athletic trainers provided the first-aid, initial

evaluation, emergency care, preventive taping, conditioning, treatment, and served as a liaison between the team physician, athletes, and the coaches (AAOS, 1991). The members of the new field of athletic training exchanged information when trainers traveled to other schools for athletic contests.

In 1938, at the Drake Relays, in Des Moines, Iowa, Bill Frey, Frank and Charles Cramer, and Michael Chambers founded the first National Athletic Trainers' Association (AAOS, 1991). This first effort to establish a national athletic trainers' association did not last. The war caused this group to disband in the early 1940's.

The present National Athletic Trainers' Association (NATA) was established at its first national meeting held in Kansas City, Missouri, in 1950 (Booher & Thibodeau, 1994). The NATA was founded to establish standards and promote the development of athletic training educational programs (AAOS, 1991).

Athletic Training: The Journal of the NATA, was first published by the NATA in 1956, to advance the field of athletic training (AAOS, 1991). The journal gave athletic trainers a way to spread ideas and increased education in the field, but little true research was published in the early journal. The NATA code of ethics was first published in 1957.

The American Medical Association's Committee for Sports Injuries was founded in 1956. Its mission was to find ways to help reduce the growing number of athletic injuries. In 1959, The Committee on Sports Injuries became the Committee on the Medical Aspects of Sports (AAOS, 1991).

The wide spread discussion of sports injuries by coaches and athletic trainers required the coordination of the terms used to describe these injuries. Terms like glass arm and trick knee were acceptable for use in the locker room, but unacceptable to the medical community. The Committee on the Medical Aspects of Sports created the Subcommittee on Classification of Sports Injuries in 1964, to develop a standard nomenclature for athletic injuries (AMA, 1966).

In 1966, the AMA's House of Delegates recognized the role of the athletic trainer as an integral part of the sports medicine team. The American Orthopaedic Society for Sports Medicine was established from the American Academy of Orthopaedic Surgeons in 1972, to promote its specialized care for athletic injuries and its relationship with the sports medicine community (AAOS, 1991).

A 1968, survey of two NATA Districts asked athletic trainers how the process of certification licensure should be addressed. The results were 27% for state boards of education, 25% responded with the American Medical Association, 18% indicated state boards of licensure, and 8% thought that licensure was not necessary (Stretch, 1968). The minimal educational requirements ranged from none, to a bachelor's degree in physical education, a degree in athletic training, or a physical therapy degree. The majority of respondents felt the need for the education of additional athletic trainers.

In 1968, The NATA Professional Advancement Committee selected a Subcommittee on Certification for the creation of requirements and a testing process to establish certification in the field of athletic training (McLean, 1969a).

The process was designed to raise standards and advance the profession (McLean, 1969b). Current members of the association were automatically certified by a "grandfather clause." The certification subcommittee worked with the Subcommittee on Curricular Development to coordinate the preparation of potential students for the proposed examination. The NATA selected the Professional Examination Service of the American Public Health Association to create and grade the exam.

In 1969, the Professional Education Committee (PEC) of the NATA was established to continue the development of professionalism in the field of athletic training. The PEC approved graduate and undergraduate athletic training education programs (NATAPEC, 1983). They established guidelines and reviewed curricula to insure that it had met the minimum standards.

The NATA created the Board of Certification (NATABOC) in 1970 to regulate the certification of entry-level athletic trainers and provide for their continuing education of Certified Athletic Trainers (ATCs). The Board of Certification established minimum standards to be eligible to become certified. The Board supervised the revision and administration of the required certification examination (NATAPEC, 1985).

The State of Texas was the first state to license athletic trainers in 1971 (NATA, 1971). A bill created the Texas Board of Athletic Trainers to regulate athletic training in the State of Texas. The Board administered its own test to determine the qualifications to practice athletic training in Texas. Licensing required applicants to be an approved curriculum graduate, a physical therapist

with a minor in physical education or health with a teaching certificate and two years of experience under a licensed athletic trainer, or a college graduate with four years of supervised experience. Texas was the only state that did not adopt the NATA certification examination for licensure (Moran, 1992).

In 1972, the NATA Professional Education Committee selected a Subcommittee on Graduate Education (Delforge, 1974). They established requirements for a graduate-level certificate program. The prerequisites to enter the program were a four year college degree, completion of 600 hours of experience under the supervision of a Certified Athletic Trainer, and completion of the following courses:

1. anatomy
2. physiology
3. physiology of exercise
4. applied anatomy/kinesiology
5. psychology (2 courses)
6. first-aid
7. nutrition
8. remedial exercise
9. personal, community, or school health
10. basic athletic training
11. advanced athletic training.

NATA approved graduate certificate program requirements included completion of a Master's degree, 300 hours of experience under a Certified Athletic Trainer, and the following courses:

1. advanced anatomy
2. advanced physiology
3. advanced physiology of exercise
4. advanced kinesiology/applied anatomy
5. and at least one of recommended courses.

The Committee on Graduate Education also recommend the following courses as a part of the graduate certificate program:

1. corrective or therapeutic exercise
2. adapted physical education
3. therapeutic modalities
4. school law
5. evaluation of physical education/tests and measurements
6. pharmacology.

Douglas (1976) reported a trial program in West Virginia that allowed teacher education graduates to earn a second specialization in athletic training. The West Virginia University program was accredited by the State Board of Education as a four year experimental program. Evaluation was based on student outcomes on the certification examination and their contribution to their schools athletic program.

Experimental athletic training education programs for high school faculty/athletic trainers were approved by the Professional Education Committee in 1976, at Northwestern University and the State of North Carolina (Miller, 1978). This method for certification of high school teachers was only offered for a period of six to eight years. The program allowed teacher/athletic trainers to become Certified Athletic Trainers by meeting the following requirements:

1. graduate from an approved program
2. pass the certification examination
3. an associate member of the NATA for one year
4. a current first-aid and Cardiopulmonary Resuscitation card
5. the recommendation of the program director
6. supervision by a Certified Athletic Trainer for 800 hours (400 hours per year).

Applications for the NATA certification examination increased from 14 in 1970, to 506 candidates in 1978 (McLean, & Westphalen, 1978). The examination was composed of a written test on basic science, applied science, theory and technique, therapeutic modalities and technique, and an oral practicum. The passing rate for certification was 91% in 1978.

Sciera (1981) concluded that the role of a program director required strong leadership and management abilities. The program directors reported administering the health care of athletes in addition to administering the NATA approved athletic training education program. The Education Department was responsible for hiring 28% of the program directors. The Education Department

and the Athletic Department cooperated for the selection of 20% of these administrators. Over 50% of the program directors possessed at least 15 years of experience in the field of athletic training.

The NATA Board of Certification conducted a Role Delineation Study in 1982, to determine the duties that needed to be taught to entry-level athletic trainers (NATABOC, 1982). Grace and Ledderman (1982) reported that the six major domains of an athletic trainer were:

1. prevention of athletic injuries
2. recognition and evaluation of athletic injuries
3. management, treatment, and disposition of athletic injuries
4. rehabilitation of athletic injuries
5. organization and administration
6. education and counseling.

These tasks were also used to evaluate athletic training educational programs. The competencies established by the Role Delineation Study included psychomotor and effective behavioral objectives (Booher & Thibodeau, 1994).

Gieck, Lephart, and Saliba (1986) conducted a follow-up study in 1974, and 1979, of athletic trainers five and ten years after certification. The results showed that 70% had earned a master's degree and 3.9% a doctorate. Of the athletic trainers surveyed, 93% felt that they had received an adequate academic preparation and 87% believed that they had adequate clinical preparation for the profession. Only 21% were currently involved in research.

Less than half of the athletic trainers had ever published and the average was one article published for each person certified.

The academic preparation of athletic trainers in relationship to their marketability to high schools was evaluated by Prentice and Mishler (1986). The great need for athletic trainers by high schools created a controversy over the Professional Education Committee's recommendation to require athletic training education programs to be a major, or the equivalent of a major. They found that students needed a Bachelor's or a Master's degree, NATA Certification, one to three years of clinical experience, and a teaching certificate preferably in physical education, math, or science to work at a high school.

Perrin and Lephart (1987, 1988), surveyed the program directors of NATA approved curriculums and found a dilemma between their roles as teachers and clinicians. Their love for the profession often drove the educators to continue working in the athletic training room, while the universities often required research and publication for tenure. They recommended that tenure tract program directors should not be involved in the clinical setting or at least limit their involvement to no more than one high risk sport. The high pressure demands of the intercollegiate athletic programs and the higher education requirements for tenure seemed to be incompatible. Tenure committees should have given equal weight to the service component of the clinically involved program directors.

A survey of program directors in 1989, found that even though curriculums followed the same guidelines there were a variety of ways that the

undergraduate athletic training educational programs were structured and administered (Weidner, 1989). Of those surveyed, 96% reviewed student evaluations in private conferences one or more times per semester. Student clinical hours were scheduled by the head athletic trainer 41% of the time, while 15% allowed the student to coordinate the scheduling. Uniforms or dress codes were required by 57% of the program directors.

The NATABOC was incorporated in 1989 (NATABOC, 1994a). The Board was a member of the National Organization for Competency Assurance that was formed in 1987, from the National Commission for Health Certification Association. The National Commission for Health Certification Association was established in 1977 to protect the public from incompetent practitioners (NATAB, 1994).

The Board of Certification became administratively independent of the NATA in 1989 and certification was required to practice athletic training in 20 states (Bair, 1992). In 1990, the Role Delineation Study was repeated by the NATABOC (1990). This study did not find a change in the six domains from the original Role Delineation Study of 1982.

Cramer (1990) found no preferred sequence for instruction of the competencies in athletic training educational programs. Program directors did not agree on the ranking of basic or advanced competencies. Additional research was suggested in the relevance of academic instruction to athletic training educational programs.

The knowledge and skills developed by athletic trainers have traditionally be passed from generation to generation by mentoring relationships (Kuznets, 1991). Highly professional active athletic trainers were found to be the strongest role models and motivators. Program director should strive to include mentoring relationships in their athletic training educational programs.

Career pathways for program directors were studied by Leard, Booth, and Johnson (1991). They suggested potential program directors should pursue a master's degree, serve for at least three to five years in an approved curriculum, and consider obtaining a terminal degree. The program directors surveyed reported a high degree of satisfaction with their positions.

The inclusion of an athletic training curriculum in a sports management program was developed as an alternative to the traditional teacher preparation model at Bowling Green State University, Ohio (Moss & Parks, 1991). The increased number of athletic trainers employed by the private sector suggested a new paradigm for athletic trainer education. The limited number of physical education teaching positions made it difficult for athletic trainers to be employed in secondary schools. A new role for the athletic trainer had developed. Skills for positions in industry, wellness, and other non-school settings should have been included in athletic training educational programs.

All students seeking certification must have completed a college degree, current First Aid and Cardiopulmonary Resuscitation (CPR) cards, and 25% of their clinical hours at practice or games of high risk sports. The NATABOC (1994a) identified high risk sports as football, soccer, wrestling, basketball,

gymnastics, lacrosse, volleyball, and rugby. NATA approved curriculums or CAAHEP accredited graduates must have completed a minimum of 800 hours of clinical experience under the direct supervision of a Certified Athletic Trainer.

Accredited athletic training educational programs were required to have formal classroom instruction in the following subjects (CAHEA, 1991):

1. prevention of athletic injuries/illnesses
2. evaluation of athletic injuries/illnesses
3. first aid and emergency care
4. therapeutic modalities
5. rehabilitation of athletic injuries
6. administration of athletic training programs
7. human anatomy
8. human physiology
9. exercise physiology
10. kinesiology/biomechanics
11. nutrition
12. psychology
13. personal/community health.

Internship students were required to complete a minimum of 1,500 hours of clinical experience under the supervision of a Certified Athletic Trainer, 500 of those hours could have been in a non-traditional setting, such as a sport camp or clinic. They must also have provided a transcript documenting that they had completed at least one class each in health, anatomy, kinesiology, physiology,

physiology of exercise, basic athletic training and advance athletic training. One course in therapeutic modalities and another in rehabilitation could have replaced the requirement for the advanced athletic training class (NATABOC, 1994a). The NATA has never approved or evaluated internship programs (NATAPEC, 1985).

Curriculum and internship candidates for certification were required to satisfactorily complete a three part examination that was administered by the Columbia Assessment Services. The certification examination included a written test, a written simulation, and an oral/practical examination. A passing score on all three parts of examination was required to become a Certified Athletic Trainer.

In 1991, 3,308 candidates took the NATA certification examination (Grace, 1992). The results of the examination showed that the curriculum graduates had a higher average score than did the internship graduates. Of the 1,318 taking the exam for the first time, 68% of the curriculum graduates passed the written section, 62% passed the oral/practicum, and 69% passed the written simulation. Of the 1,990 internship students, 53% passed the written section, 57% passed the oral/practicum, and 55% passed the written simulation.

The 78 NATA approved undergraduate athletic training programs graduated 605 students for an average of 7.8 per school (NATAPEC, 1982). Women composed 62% of the graduates. Only 42% of the graduates reported that they had received position in the field of athletic training, but an additional 37% had entered post-graduate study.

Preferred learning styles and routes to certification, curriculum or internship, were reported not to effect certification exam scores (Draper, 1989). The study recommended that educational programs should provide for more hands on learning, opportunities for independent learning, develop reading comprehension, provide for written and oral exams, and allow mentors to evaluate students clinical experience.

Research in the field of athletic training has been limited. Osternig (1988) criticized the profession for not promoting an investigation of the techniques used in the field. The NATA was encouraged to promote quality research, and publish the findings. The obstacles to athletic trainers' involvement in research needed further investigation.

The implementation of a major in athletic training at Purdue University was described by Rudd, Templin, and Toriscelli (1988). They suggested establishing a need, evaluating the curriculum, and assessing the personnel before developing a plan for building administrative support for a new major.

The American Medical Association (AMA) had promoted allied health programs for over fifty years (Burrows & Hedrick, 1988). The AMA began the accreditation of allied health profession in 1976, with the Committee on Allied Health Education and Accreditation (CAHEA) as reported in the *Journal of the American Medical Association* (Fauser & Hedrick, 1989).

The NATA Professional Education Committee applied to CAHEA in 1989, for identification of athletic training as an allied health field (CAHEA, 1991). In June 1990, the AMA Council on Medical Education authorized the accreditation

of entry-level athletic trainers (Weithaus & Fauser, 1991). They established a Joint Review Committee on Educational Programs in Athletic Training (JRC-AT) within CAHEA. The JRC-AT was headed by Dr. Robert Behnke of Indiana State University in Terre Haute, Indiana. The process of accreditation involved a self-study, a site visit, and a review by the committee (see Figure 2) (NATAa, 1994).

The University of Virginia developed a competency based, structured internship program according to the CAHEA guidelines in 1991 (Sammarone, Keskula, Gieck, Saliba, & Foreman, 1992). The students in this non-accredited program were reported to be able to develop technical skills, assist in the athletic training room, and increase their critical thinking skills. The accreditation process had begun to have an effect on programs that are not planning to apply for accreditation.

Anderson, Johanson, and Scaffidi (1992) examined the possibilities of predicting academic success in the admission process to the athletic training curriculum. They considered high school grade point average, class rank, American College Test scores, and year of admission. These variables did not accurately predict that the students would complete the program. Additional research was suggested to aid program directors in implementing a viable selection process for athletic training education students.

The role of athletic trainers in clinical instruction had received little attention in research. Foster and Leslie (1992) surveyed Midwest athletic

Figure 2

The Process of CAAHEP Accreditation for Athletic Training Education Programs

1. Application submitted to CAAHEP with authorization of the institutions chief executive officer.
 2. The institution appointed a review committee to conduct a self-study and submitted a self-study report to the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT).
 3. A site visit team was selected by the JRC-AT with the program directors permission.
 4. The site visit team chairperson contacted the program director to coordinate the dates and agenda for the site visit.
 5. The site visit team toured the campus; conducted interviews of administration, faculty, and students; evaluated facilities; and validated the self-study report.
 6. The site visitation team submitted a written report to the JRC-AT.
 7. The JRC-AT sent copies of the site visit report to the department head and the program director.
 8. The institutions chief executive officer and program director were provided an opportunity to respond to the site visit report in writing.
 9. A site visit questionnaire was sent to the department head and program director for evaluation of the site visitation team and the accreditation process.
 10. The JRC-AT evaluated the site visit report and the institutions response to the report and made recommendations to the Committee on Unit Recognition..
 11. The Committee on Unit Recognition could have recommended accreditation for a variable period of time, withdrawal of accreditation, or probation to CAAHEP.
 12. CAAHEP could have awarded full or probationary accreditation, or withhold accreditation.
 13. The JRC-AT notified the head of the department and the program director in writing of their accreditation status.
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training clinical instructors and found that those with teaching degrees and post graduate education presented a wider content with more varied teaching methods. Athletic trainers with less than six years of experience had difficulty finding time for clinical instruction. Additional research in the proper methods of clinical instruction for athletic trainers was recommended.

Allied clinical settings for clinical experience in athletic training education were studied by Duncan and Wright (1992). The domains of evaluation, prevention, and rehabilitation or reconditioning were rated as most important to clinical athletic trainers. Curriculums in athletic training were encouraged to increase their emphasis in these three domains and provide opportunities for increased work in the non-traditional settings, such as physical therapy clinics.

Professional preparation evaluation by employed entry-level athletic trainers as outcome based measurements of a program success were studied by Weidner and Vincent (1992). Both the curriculum graduates and internship route athletic trainers felt that they were not given adequate clinical experience hours, and could have received more leadership, guidance, and evaluation. They suggested more instruction in the areas of rehabilitation and reconditioning, organization and administration, and counseling and education.

The development of state laws in 20 states regulating and licensing athletic trainers had created a variety of requirements, permitted practices, and restrictions on the profession of athletic training (Moran, 1992). The NATA certification examination was required for licensure by all states, except Texas. The differences in laws were so great that it made the development of a common

national standard extremely difficult. The future advancement of athletic training could have been enhanced by a national movement to provide for reciprocity and the creation of a uniform athletic trainer act.

Bazluki (1993) stated that surgical observation could be a valuable experience in the education of a student athletic trainer. Students could learn more about injuries and the effect of an injury to normal anatomy by observing surgical procedures. The observation of surgery was not required for certification candidates, but many programs included it as one of the required clinical experiences (Knight, 1990).

Curtis (1993) studied four first-year high school athletic trainers and recommended that preparation programs should provide high school experience for advanced students. Education on the adolescent athlete, the realities of high school athletic training, and state regulations should have been included in undergraduate athletic training education programs. The programs should also have provided for more hands-on practice of techniques.

Entry-level athletic trainer salaries in 1992, as reported by Moss (1994) for a Bachelor's degree averaged approximately \$23,000, those with a Master's \$25,000, and high schools paid a stipend of \$4,000. The study recommended additional research to document future trends on salaries in the field.

July 1, 1994, CAAHEP assumed the duties for accrediting programs from CAHEA (see Figure 3). It was to be supported for its first three years by the American Medical Association and then become a self-supporting agency

Figure 3

Development of Athletic Training Education Programs

800 BC	Medical gymnastics or therapeutic exercise used in Atharva-Veda
400 BC	Herodicus, first sports physician
100 AD	Galen, first recorded team physician
1847	American Medical Association (AMA) established
1949	National Commission of Accrediting founded
1905	First AMA Congress on Medical Education
1864	Dr. Edward Hitchcock, Jr., first American team physician, Amherst College
1885	American Alliance for Health, Physical Education, and Recreation (AAHPER) founded
1888	Amateur Athletic Union founded
1904	AMA Council on Medical Education created
1906	Collegiate Athletic Association of the United States founded
1910	Flexner Report published
1920	National Federation of State High School Associations founded National Association of Intercollegiate Athletics founded
1938	First National Athletic Trainers' Association founded (NATA) , Des Moines, Iowa
1940	First National Athletic Trainers' Association disbanded
1950	First National Meeting of the National Athletic Trainers' Association, Kansas City, MO
1956	<i>Athletic Training: The Journal of the National Athletic Trainers' Association</i> first published NATA Professional Advancement Committee formed American Medical Association's Committee for Sports Injuries (CSI) founded
1957	National Athletic Trainers' Association Code of Ethics published

- 1959 CSI became the Commission on the Medical Aspects of Sports (CMAS)
- 1964 CMAS created the Subcommittee on Classification of Sports Injuries
- 1966 AMA House of Delegates first recognized athletic trainers
- 1967 Department of Allied Medical Professions and Services (DAMPS) expanded under the Division of Medical Education and within the AMA Council on Medical Education
- DAMPS Created an Advisory Committee on Education for the Allied Health Services
- 1968 NATA Professional Advancement Committee Subcommittee on Certification created
- 1969 NATA Subcommittee on Professional Education created
- NATA Subcommittee on Certification appointed
- AMA Council on Health Manpower created
- 1970 NATA Professional Education Committee created
- NATA Board of Certification (NATABOC) established
- First NATA Certification Examination administered to 14 candidates
- 1971 Texas established licensuer for Athletic Trainers
- Study of Accreditation of Selected Health Education Programs conducted
- 1972 American Orthopaedic Society for Sports of Medicine established from the American Academy of Orthopaedic Surgeons
- NATA Subcommittee on Graduate Education Programs created
- 1974 Council on Postsecondary Accreditation (COPA) Established
- 1976 AMA Committee on Allied Health Education and Accreditation (CAHEA) inherits accreditation of allied health professions from the Council on Medical Education
- NATA approves experimental high school teacher/athletic trainer educational programs
- 1977 National Commission for Health Certification Association (NCHCA) founded

- 1979 AAHPER became the American Alliance for Health, Physical Education, Recreation, and Dance
- 1982 NATABOC conducted first Role Delineation Study
- 1987 National Organization of Competency Assurance established by the NCHCA
- 1989 NATABOC incorporated and became administratively independent for the NATA
- NATAPEC applied to CAHEA for identification of athletic training as an allied health field
- 1990 AMA Council on Medical Education accepted athletic training for CAHEA accreditation
- Joint Review Committee on Education Programs in Athletic Training established by CAHEA
- Role Delineation Study repeated
- 1991 CAHEA accreditation selected to replace the NATAPEC approval process
- CAHEA published *Essential and Guidelines for an Accredited Education Program for an Athletic Trainer*
- 1992 Task Force appointed to restructure CAHEA
- 1993 Proposal for Establishment of the Committee on Accreditation of Allied Health Programs (CAAHEP) released
- Council on Postsecondary Accreditation dissolved
- 1994 Commission on Accreditation of Allied Health Education Programs (CAAHEP) replaced CAHEA
- CAAHEP first accredited athletic training educational programs
- A new Role Delineation Study was conducted by the NATABOC
-

(Weithaus, 1993). The American Orthopaedic Society for Sports Medicine, the American Academy of Family Physicians, the American Academy of Pediatrics, and the NATA were co-sponsors of the Joint Review Committee on Education Programs for Athletic Trainers (NATA, 1995).

Curtis (1994) found that 75% of the NATA approved undergraduate athletic training education programs were housed in the department of physical education or kinesiology. None required students to complete teaching certification, but 25% of the 1992, and 23% of the 1991, graduates surveyed planned to seek teacher certification. Physical education was the teaching field selected by 64% of those seeking teacher certification.

Starkey and Henderson (1995) found curriculum graduates performed significantly better than internship candidates on the NATA certification examination. They concluded that the individual program structures, practicum quality, and stress of the examination process also effected the outcomes on the test. Only 24% of the first time internship candidates passed the examination, compared to 32% of the curriculum graduates. They suggested additional areas for study including educational background, number of hours in high risk sports, and the content of athletic training classes.

A new role delineation study was conducted by the NATA in 1994 (NATABOC, 1994b). The 1994 Role Delineation Study revised the areas of athletic training into five new domains. The new performance domains were:

1. prevention of athletic injuries

2. recognition, evaluation and immediate care of athletic injuries
3. rehabilitation and reconditioning
4. health care administration
5. professional development and responsibility.

Candidates for certification in 1996, were to be tested on the tasks, knowledge, and skills determined by this new role delineation study. Each domain contained universal competencies. The universal competencies included were (NATABOC, 1994b):

1. athletic training evaluation
2. human anatomy
3. human physiology
4. exercise physiology
5. biomechanics
6. psychology/counseling
7. nutrition
8. pharmacology
9. physics
10. organization and administration.

Summary

The accreditation of undergraduate athletic training education programs was a new phenomenon that needed investigation. The American Medical Association had long supported the process of accreditation through CAHEA,

and had allowed this agency to become an independent organization with CAAHEP. This study focused on the effects of the accreditation process on undergraduate athletic training education programs that were previously NATA approved.

The role of accreditation had traditionally been left to voluntary, non-governmental agencies. Specialized accreditation was designed to validate individual programs within an established institution. The American Medical Association had been a strong supporter of allied health accreditation throughout the past century. The development of athletic training as an allied health field resulted in the initial entry-level program accreditation occurring at the same time as the restructuring of CAHEA and the dissolution of COPA.

The literature showed that the accreditation process was continuing to evolve. The final shape of the agencies that evaluate educational programs in the next century may be entirely different from what they were in the past. It appears that some external measurement of quality will continue to be needed to evaluate educational institutions in the future.

CHAPTER 3

DESIGN OF THE STUDY

Introduction

This study examined the effects of the Commission on Accreditation of Allied Health Education Programs' (CAAHEP) accreditation process on the curriculum, finances, enrollment, and faculty of National Athletic Trainers' Association (NATA) approved undergraduate athletic training education programs. This chapter includes a description of the selection of subjects, the survey questionnaire, the procedure used in mailing the survey, the telephone follow-up, and a description of the treatment of the data.

Selection of Subjects

The subjects for this study were all of the NATA approved athletic training education programs accredited by the CAAHEP Joint Review Committee on Educational Programs in Athletic Training (JRC-AT) prior to November 1, 1994. The program directors of the athletic training education programs of the following institutions were surveyed:

1. Anderson University, Anderson Indiana
2. Appalachian State University, Boone, North Carolina

3. Central Michigan University, Mt. Pleasant, Michigan
4. Eastern Illinois University, Charleston, Illinois
5. Grand Valley State University, Allendale, Michigan
6. Gustavus Adolphus, St. Peters, Minnesota
7. Slippery Rock University, Slippery Rock, Pennsylvania
8. South West Missouri State University, Springfield, Missouri
9. Oregon State University, Corvallis, Oregon
10. Texas Christian University, Forth Worth, Texas
11. University of Illinois, Urbana, Illinois
12. University of Iowa, Iowa City, Iowa
13. University of Vermont, Burlington, Vermont
14. Washington State University, Pullman, Washington.

Survey Questionnaire

A survey questionnaire (Appendix I) was used to determine the curriculum, finances, enrollment and faculty for the NATA approved athletic training education programs the academic year before accreditation and after the accreditation. The survey asked:

1. Was your undergraduate athletic training education program approved by the NATA prior to its accreditation by CAAHEP?
2. When was your athletic training education program accredited by CAAHEP?

3. Did you have to make any changes to your NATA approved curriculum to receive accreditation by CAAHEP?
4. What changes did you have to make to the curriculum to receive accreditation?
5. What factors other than the process of accreditation do you perceive may have resulted in these changes to the curriculum?
6. What were the costs to the institution for Certified Athletic Trainers involved in administration and instruction of athletic training classes, including benefits, the academic year prior to accreditation?
7. What were the costs to the institution for Certified Athletic Trainers involved in administration and instruction of athletic training classes, including benefits, after accreditation?
8. What factors other than the accreditation process do you perceive may have effected these costs?
9. What was the cost to the institution for the accreditation site team visit?
10. What were the costs to the institution to buy or repair instructional equipment and supplies in order to comply with accreditation the academic year before accreditation?
11. What were the costs to the institution to buy or repair instructional equipment and supplies in order to comply with accreditation the after accreditation?

12. What factors other than the accreditation process do you perceive may have effected these costs?

13. The number of declared majors in the athletic training educational program the academic year before accreditation?

14. The number of declared majors in the athletic training educational program after accreditation?

15. What factors other than the accreditation process do you perceive may have effected your enrollment?

16. What was the number of Certified Athletic Trainers required to direct, teach, and serve as clinical instructors in the athletic training classes the academic year prior to accreditation?

17. What was the number of Certified Athletic Trainers required to direct, teach, and serve as clinical instructors in the athletic training classes after accreditation?

18. What benefits, if any, do you perceive the accreditation process had on your institution?

19. How did you justify the time and expense necessary to apply for accreditation?

20. What factors other than the accreditation process do you perceive resulted in the changes to you program?

21. What suggestions would you make to improve the process of CAAHEP accreditation?

Procedure

The effect of accreditation on NATA approved undergraduate athletic training education programs accredited by CAAHEP was determined by surveying its program director and by comparing its curriculum, finances, enrollment, and faculty before and after accreditation. This survey was reviewed and validated by a panel of five expert judges during the 1993 NATA National Symposium in Dallas, Texas. The procedure was submitted to the Office of Human Research for common rule exemption in May of 1995.

The survey questionnaire was printed double sided on 8 1/2" by 11" goldenrod paper in the landscape mode (Dillman, 1978). It was folded in half and stapled in the middle to produce an eight page, brochure style survey questionnaire.

The survey and a cover letter (Appendix II) were mailed to the program directors of the CAAHEP accredited athletic training education programs that were previously approved by the NATA (Dillman, 1978). The survey was coded to assure confidentiality and to determine which programs had responded to the survey. A business reply envelope was included with the survey.

A reminder letter (Appendix III) was mailed one week following the original mailing to encourage the program directors to promptly complete and return the survey. The survey was requested to be returned within two weeks. A personal telephone call was made after three weeks to any program directors

that had not returned their surveys and to clarify information required for completion of the study.

Treatment of Data

A descriptive summary analysis was performed on the program data from before and after the accreditation process. Each question was treated by a separate analysis. The statistical frequencies, ranges, means, and percentages of change were calculated when appropriate.

A summary of responses was used to evaluate the effect of the CAAHEP accreditation process on the curriculum, finances, enrollment, and faculty of the program. The opinions of the program directors were compared to determine if they were in agreement on the effects of the process and their suggestions for improving the process of accreditation were reported.

Summary

A survey questionnaire was mailed to the program directors of the NATA approved undergraduate athletic training education programs accredited by the Joint Review Committee-Athletic Training of CAAHEP. It requested information concerning the program director's perception of the effects that CAAHEP accreditation had on their athletic training educational program. A summary analysis compared the data received from all institutions. No institution was identified in the results of the study. A copy of the findings were made available to any participants that requested the results of the study.

CHAPTER 4

RESULTS OF THE STUDY

Introduction

The program directors of the National Athletic Trainers' Association (NATA) approved undergraduate athletic training education programs accredited by the Commission for Accreditation of Allied Health Education Programs (CAAHEP) were mailed survey questionnaires. The survey asked the 14 program directors what effect they perceived the CAAHEP process of accreditation had on their NATA approved undergraduate athletic training programs. Twelve of the program directors responded to the survey questionnaire.

Accreditation

All 12 programs were NATA approved undergraduate athletic training education programs prior to its accreditation by CAAHEP in 1994. Programs that were not NATA approved prior to accreditation were not included in this study. The Joint Review Committee-Athletic Training (JRC-AT) supplied a list of the program directors of accredited programs in November of 1994. One

program said that it was accredited in March, one in September, five in October, and five in November of 1994.

Curriculum

Ten of the programs did not have to change its NATA approved curriculum to receive accreditation by CAAHEP. One program added a course in injury evaluation after the completion of its self-study. Only one program indicated that it needed to change its curriculum to receive accreditation. It added a course in the administration of athletic training and divided a course in modalities and exercise into two separate classes, one class on exercise rehabilitation and the other class on therapeutic modalities. That program also appointed a new Curriculum Director as a result of the self-study.

The separation of the therapeutic modality and exercise class into two courses was perceived to be the result of student need. The program director reported that the course contained more information than could be covered in one course. The selection of a new Curriculum Director was partial because of CAAHEP accreditation and partially to reflect the assigned duties more accurately.

Finances

The financial costs to the university to receive CAAHEP accreditation examined in this study included Certified Athletic Trainers (ATCs) involved in administration and instruction of athletic training classes, including benefits. It

also included the cost of the site visit, and the costs to buy or repair equipment and supplies for the education program.

The cost for ATCs involved in administration and instruction of athletic training classes, including benefits, before the accreditation process ranged from \$4,500 to \$121,720 and the average cost was \$62,985 (see Table 1). The costs for ATCs after accreditation ranged from \$8,000 to \$126,372 with an average cost of \$68,343. The mean increase in the costs for Certified Athletic Trainers was 8.5%. The increase in costs ranged from \$0 to \$43,000 with an average increase of \$5,359. The factors other than the process of accreditation that may have effected these costs included adjustments for inflation, pay raises, and the addition of new faculty.

The costs to the institution for the accreditation site visit team ranged from \$350 to \$2,800 (see Table 2). The average cost for the site visit was \$1,393. The primary difference in the visitation costs involved the purchase of airline tickets for travel between the site visitation teams home and the location of the institution.

The costs to the institution to buy or repair instructional equipment and supplies in order to comply with accreditation the academic year before accreditation ranged from \$0 to \$4,400 (see Table 3). The average cost to buy or repair equipment before accreditation was \$745. The average cost to buy or repair equipment after accreditation decreased by 23%, or \$175, to \$570. The factors other than the accreditation process that the program directors perceived

Table 1

Costs for Certified Athletic Trainers Involved in Administration and Instruction of Athletic Training Classes, Including Benefits, Before and After Accreditation

Before	After	Change
\$ 0	\$ 0	\$ 0
\$ 0	\$ 0	\$ 0
\$ 4,500	\$ 8,000	\$ 3,500
\$ 34,000	\$ 77,000	\$ 43,000
\$ 50,417	\$ 53,598	\$ 3,181
\$ 52,500	\$ 56,000	\$ 3,500
\$ 65,000	\$ 65,000	\$ 0
\$ 80,000	\$ 80,000	\$ 0
\$101,734	\$101,734	\$ 0
\$102,959	\$104,070	\$ 1,111
\$121,720	\$126,372	\$ 4,652

Note. $n=11$, one no response.

Table 2

Costs in Dollars to the Institution for the Accreditation Site Visit Team

Number of Institutions	Costs
1	\$ 350
2	\$ 993
1	\$1,000
1	\$1,053
1	\$1,023
1	\$1,200
2	\$1,500
1	\$1,800
1	\$2,400
1	\$2,800

Note. n=12.

Table 3

Costs to the Institution to Buy or Repair Instructional Equipment and Supplies in Order to Comply with Accreditation the Academic Year Before and After Accreditation

Number of Institutions	Before	After
7	\$ 0	\$ 0
1	\$ 200	\$ 0
1	\$1,000	\$1,000
1	\$1,500	\$1,500
1	\$1,840	\$1,840
1	\$4,400	\$2,500

Note. n=12.

Table 4

Number of Declared Majors in the Athletic Training Educational Program the
Before and After Accreditation

	Before	After
	5	4
	16	16
	20	20
	22	22
	24	24
	24	32
	28	20
	32	32
	36	36
	39	44
	60	60
	64	64

Note. n=12.

Table 5

Number of Certified Athletic Trainers Required to Direct, Teach, or Serve as Clinical Instructors in the Athletic Training Classes the Academic Year Before and After Accreditation

Number of Institutions	Before	After
1	2	2
2	3	3
1	4	3
3	4	4
1	5	6
1	8	8
1	10	11
1	12	12
1	18	18

Note. $n=12$.

may have effected these costs included previous grants for equipment and regular institutional funds for ongoing maintenance.

Enrollment

The number of declared majors in the athletic training educational program the academic year prior to accreditation ranged from five to 64 (see Table 4). The average number of declared majors the year before accreditation was 31 students. The number of declared majors in the athletic training educational program after accreditation ranged from four to 64. The average number of declared majors decreased by 6% after accreditation to 29 students. University reconfiguration, the addition of a new affiliated clinical setting, the hiring of additional faculty, and a lack of staff to supervise the clinical experiences were cited as reasons other than the process of accreditation that program directors perceived may have effected the enrollment.

Faculty

The number of Certified Athletic Trainers (ATCs) required to direct, teach, or serve as clinical instructors in the athletic training classes the academic year before accreditation ranged from two to 18 (see Table 5). The average number of ATCs the year before accreditation was six. The number of ATCs after accreditation ranged from two to 18. The average number of ATCs after accreditation was seven. Two programs showed an increase of one Certified Athletic Trainer while the others remained constant.

Benefits

The primary benefits to the institution were intangible attributes effecting status and prestige. The program directors perceived the benefits of accreditation to their institution included:

1. offering an accredited program
2. national accreditation
3. helped a small private school attract quality students
4. maintained an approved program
5. provided additional support from the college
6. provided greater visibility with administration
7. allowed the college to learn about the athletic training program
8. increased respect for program
9. accreditation aided in student recruitment
10. provided a measure of quality
11. increased recognition by the academic administration
12. made requests for new faculty a priority
13. validated programs increased national exposure and recognition
14. forced a self-study
15. maintained their status to internal and external constituents.

Time and Expense

The time to prepare the accreditation self-study was substantial and the additional expenses should be justified. The program directors justified the time and expense necessary to apply for accreditation by:

1. the tradition of an established program
2. the need for quality
3. the ability to attract student interest
4. university desire for national accreditation of all programs
5. the importance of national recognition as an allied health profession
6. professionalism
7. support from the college
8. personal motivation
9. a quality standards emphasis in the academic unit
10. state recognition
11. administration understanding of accreditation
12. no difference from the NATA approval process
13. the program's need for review
14. the academic integrity offered by accreditation
15. support from the university administration
16. a requirement to maintain an approved athletic training program.

Additional Factors

The process of accreditation occurred simultaneously with additional factors and could not be responsible for all of the changes that effected the curriculum, finances, enrollment and faculty of athletic training education programs. The program directors were requested to include additional reasons for changes to their programs. Factors other than the accreditation process that the program directors perceived resulted in the changes to the programs included:

1. student requests
2. evaluation of work being done
3. defined the roles of ATCs on campus
4. importance to the university
5. supervision of clinical experience adds to an already over worked schedule
6. support and respect from a new president
7. a move from an emphasis in the Department of Health, Physical Education, and Recreation to a comprehensive major in Sports Medicine and Athletic Training
8. a more focused approach to the educational requirements and the tracking of the educational requirements during clinical hours
9. student interest

10. clinical quality assurance
11. continued self-evaluation
12. improvements to the program
13. on-going self-evaluation
14. institutional review.

Suggested Improvements

The process of specialized accreditation had been criticized for an abundance of paperwork for the documentation of compliance. The Joint Review Committee on Educational Programs in Athletic Training followed each site visit with an evaluation form for the program director and the department chair to complete. A review of the process of accreditation could lead the committee to recommend improvements to the process of accreditation. The program directors' suggestions for improvement to the process of accreditation included:

1. less time between the site visit and notification of accreditation
2. better communication between the chief site visitor and the program directors in planning the campus visits
3. a less extensive self-study
4. the self-study guide was not easy to follow
5. to just do the minimum and justify the process
6. to decrease the paperwork
7. a friendlier format for the self-study

8. more direction and less ambiguity in the self-study
9. more experienced evaluation teams
10. to downsize the self-study
11. to reduce the costs for smaller schools
12. clearer and more concise directions for completing the self-study
13. end the duplication that exists in the documentation.

Additional Comments

Reflections of program directors who have completed a detailed self-study, an investigation by peer experts, and had waited anxiously for the news granting their program accreditation were sources of useful insights. This survey allowed the program directors to make additional comments regarding the accreditation process. The comments of the program directors included:

1. the need for national accreditation in the profession
2. the elimination of internship route to certification
3. it is a very demanding process
4. being a site visitor helps one to understand the process better
5. the process of accreditation offered an opportunity for tremendous recognition, commitment, and reaffirmation from the academic administration.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The effects of the Commission on Accreditation of Allied Health Education Programs' (CAAHEP) accreditation process on the curriculum, finances, enrollment, and faculty of National Athletic Trainers' Association (NATA) approved undergraduate athletic training education programs appears to have had little effect on the curriculum, minimal effect on the financial costs to the institution, a minimal effect on student enrollment, and a small increase in the number of faculty. The primary benefit of the accreditation process was in the recognition the programs received from the institutions own academic administration during the self-study process.

Curriculum

The requirements for CAAHEP accreditation were accepted directly from the Professional Education Committee of the NATA. Changes to the curriculum were not generally necessary. Only one institution had to change its NATA approved curriculum to receive accreditation. It added a course in the administration of athletic training, and divided one course on exercise and

modalities into two separate courses. One class was created specifically on rehabilitation of athletic injuries and another course was added for therapeutic modalities. Another program added a course in injury evaluation as a result of its own self-study process.

Finances

This study showed a minimal increase in the finances of a NATA approved athletic training program following the process of accreditation. The average cost to the institution for Certified Athletic Trainers involved in the administration and instruction of athletic training classes, including benefits, increased an average of \$5,359 to \$68,343 from \$62,985. Inflation and normal raises influenced these salaries more than the process of accreditation.

Each institution was responsible for the expenses of the site visitation team, a \$200 application fee, a \$200 annual institutional fee, and a \$250 annual program fee. The site visit expenses normally included travel, food, and lodging for the visitation team. The distance between the institution and the home of the site visitor was the primary reason the variations in costs. The average cost for the site visit team was \$1,393, with a range of \$350 to \$2,800.

The average cost to the institution to buy or repair instructional equipment or supplies decreased \$175, from an \$745 to \$570. Normally a college or university with an intercollegiate athletic program already had most of the required equipment and supplies to operate its service program. The initiation of an educational program required additional purchases of audio-visual aids,

computers, and models that did not have to be replaced every year. Many schools needed a substantial one time grant to purchase teaching aids and then a lesser amount of money to repair or replace these durable goods.

Enrollment

The effect of the process of accreditation impact on student enrollment may not be evident for several years. The number of declared majors in the athletic training educational program ranged from five to 64 the academic year before accreditation. The number ranged from four to 64 after accreditation. The average number of students decreased from 31 to 29 after accreditation.

Enrollment might have increased if graduation from an accredited program became necessary to apply for NATA Certification or state licensure. The elimination of the internship route to certification had been under informal discussion for several years. Non-curriculum programs feared the loss of student interns to assist its athletic training staff. Proponents saw an increase in quality, salary, and status of the profession by requiring graduation from an accredited program as the only route to certification.

Faculty

The size of the institutions athletic training faculty depended primarily on the number of athletic training classes offered and the number of sections for each class. Student enrollment has driven both of these factors. The addition of

more students to the program was limited by the number of clinical instructors and the size of the athletic training room of the institution.

The number of Certified Athletic Trainers required to direct, teach, or serve as clinical instructors in the athletic training classes ranged from three to 18 the academic year before accreditation. The average number of ATCs was six. After accreditation the range of ATCs remained the same, but the average number increased to seven.

Benefits

The benefits of the accreditation process were in national recognition, increased student interest, and improved status within the local academic setting. The program directors perceived the process to increase professionalism and attract quality students. The institutional administration was cited by those surveyed to support the concept of allied health accreditation. The main benefit was the education of the schools own administration through the completion of the self-study.

Time and Expense

Program directors used the need for accreditation of approved programs as a way to justify the time and expense necessary to apply for accreditation. The understanding of the term accreditation by higher education administrators seemed to increase institutional support for the process. Personal and

professional status were additional incentives that the program directors cited as reasons for applying for accreditation.

Suggestions

The majority of suggestions to improve the process of accreditation were to decrease the duplication of requested material. The communication between the site visit team and the institution was another area that program directors requested improvement. They also would have liked to have a reduction in the time between the site visit and notification of accreditation.

The process of accreditation appeared to be more important to the institution than the final accreditation. The program directors knew what was required for accreditation and had time to conform to the necessary essentials. The process allowed for review and a self-study that provided the primary initial benefits of accreditation.

Conclusions

The effects of CAAHEP accreditation on the curriculum, finances, enrollment, and faculty of NATA approved undergraduate athletic training education programs were minimal. The process did little to change the existing framework of the established athletic training educational programs. The primary benefits accrued from the actual self-study process that served to educate the administration of the institution housing the program.

Accreditation of NATA approved athletic training education programs should be readily obtainable. The transition to CAAHEP accreditation should be relatively simple for existing programs. The requirements for accreditation are very similar to those already established for NATA approval.

The financial costs for accreditation are minimal and should be affordable even for small colleges. The application fees and cost for the site visit should be under \$2,000. The majority of the necessary equipment and supplies should be available in the institutions existing athletic training room.

The greatest need for change in process of accreditation was in the streamlining of the process and a reduction in the amount of paperwork required to be submitted to the Joint Review Committee. The use of a computer program supplied from the committee could have saved valuable time in the processing of the required information. The computer program should be supplied by CAAHEP to all institutions applying for accreditation. This would make the reporting of the required information less taxing and the data more uniform.

Recommendations

Additional research in the area of the Commission on Accreditation of Allied Health Education Programs would increase the awareness of the effects accreditation has had on athletic training education programs. Areas of investigation that the results of this study suggested were:

1. Studies to explore ways to reduce the duplication of materials submitted to the Joint Review Committee-Athletic Training (JRC-AT).

2. A five or ten year follow-up study to provide more insight to the effects of CAAHEP accreditation on the curriculum, finances, enrollment, and faculty of NATA approved athletic training education programs.

3. A comparison of new programs to established programs that were NATA approved prior to accreditation may offer additional alternatives to the traditional methods of athletic trainer education.

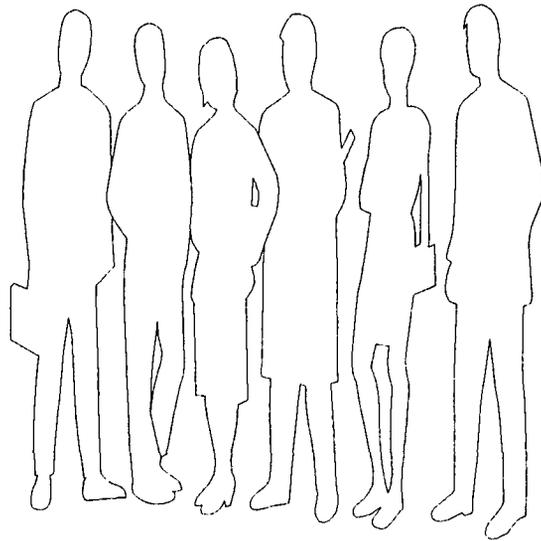
4. A study to determine the effect of the NATA internship route to certification on the profession of athletic training and CAAHEP accreditation.

5. A study to determine if graduates of CAAHEP accredited programs make better athletic trainers than internships athletic trainers.

APPENDIX I

SURVEY QUESTIONNAIRE

**EFFECTS OF THE PROCESS OF ACCREDITATION
ON UNDERGRADUATE ATHLETIC TRAINING
EDUCATION PROGRAMS**



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University of Nevada, Las Vegas
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We would like to know what effects you perceive the CAAHEP accreditation process had on your NATA approved undergraduate athletic training education program. Please circle the number that best applies to your program.

1. Was your undergraduate athletic training education program approved by the NATA prior to its accreditation by CAAHEP? (circle number)

1-NATA approved prior to accreditation

2-**Not** NATA approved prior to accreditation

2. When was your athletic training education program accredited by CAAHEP. (circle number)

Month 1-2-3-4-5-6-7-8-9-10-11-12

Year 1993-1994

3. Did you have to make any changes to your NATA approved curriculum to receive accreditation by CAAHEP? (circle number)

1-Changed the curriculum

2-Did **not** Change the curriculum

If you circled #1 please continue with question #4.

If you circled #2 please go to question #6.

4. What changes did you have to make to the curriculum to receive accreditation?

5. What factors other than the accreditation process do you perceive may have resulted in these changes to the curriculum?

Next we would like to determine the financial costs to the university to receive CAAHEP accreditation.

6. What were the costs to the institution for Certified Athletic Trainer's involved in administration and instruction of athletic training classes, including benefits, the academic year prior to accreditation? (exact cost, in dollars)

\$ _____

7. What were the costs to the institution for Certified Athletic Trainer's involved in administration and instruction of athletic training classes, including benefits, after accreditation? (exact cost, in dollars)

\$ _____

8. What factors other than the accreditation process do you perceive may have effected these costs?

9. What was the cost to the institution for the accreditation site visit team? (exact cost, in dollars)

Total site visit cost:

\$ _____

10. What were the costs to the institution to buy or repair instructional equipment and supplies in order to comply with accreditation the academic year before accreditation? (exact cost, in dollars)

\$ _____

11. What were the costs to the institution to buy or repair instructional equipment and supplies after accreditation? (exact cost, in dollars)

\$ _____

12. What factors other than the accreditation process do you perceive may have effected these costs?

Another purpose of this study is to determine the effects of the accreditation process on student enrollment and the number of faculty involved in the athletic training educational program.

13. The number of declared majors in the athletic training educational program the academic year prior to accreditation? (number of students)

14. The number of declared majors in the athletic training educational program after accreditation?
(number of students)

15. What factors other than the accreditation process do you perceive may have effected your enrollment?

16. What was the number of Certified Athletic Trainers required to direct, teach, or serve as clinical instructors in the athletic training classes the academic year before accreditation?

17. What was the number of Certified Athletic Trainers required to direct, teach, or serve as clinical instructors in the athletic training classes after accreditation?

Now we would like to determine your perceptions regarding the accreditation process in general.

18. What benefits, if any, do you perceive the accreditation process had on your institution?

19. How did you justify the time and expense necessary to apply for accreditation?

20. What factors other than the accreditation process, do you perceive resulted in the changes to your program?

21. What suggestions would you make to improve the process of CAAHEP accreditation?

Please feel free to make any additional comments regarding the effects of the accreditation process in the space provided below. Thank you for your participation.

Include your name and address on the back of the return envelope if you would like a summary of the results (**NOT** on the questionnaire).

APPENDIX II

COVER LETTER

November 1, 1994

«first» «last»
Athletic Training
«title»
«university»
«city», «st» «zip»

Dear «first»,

The recent acceptance of athletic training as an allied health field by the AMA has led to accreditation by CAAHEP of NATA approved undergraduate athletic training education programs. Program Directors are now faced with the decision to seek accreditation. Information regarding this process is not readily available.

The only people that know what effects the process of accreditation have on NATA approved programs are the Program Directors that have already gone through this process. You are the best source of information for others considering applying for accreditation. Your experience can be an important reason that other institutions will use to make their decisions. The select number of programs already accredited requires that all Program Directors return complete and accurate information.

You may be assured of complete confidentiality. The identification number on the questionnaire will only be used to confirm receipt. Your name or institution will never be attached to the questionnaire.

Your perceptions are needed by other members of the NATA, educators, and administrators. You may request a summary of the results of this study by writing your name and address on the back of the return envelope. Please do not write your name or address on the questionnaire.

I will be pleased to discuss this with you by telephone at 805-493-3406 or by e-mail at poindexter@callutheran.edu. After you complete the questionnaire, please return it in the enclosed self-addressed, stamped envelope by November 15, 1994. Thank you for taking time out of your busy schedule to help with this project.

Sincerely Yours,

Rod Poindexter

APPENDIX III

REMINDER LETTER

November 8, 1994

«first» «last»
Athletic Training
«title»
«university»
«city», «st» «zip»

Dear «first»,

I would like to thank you for completing my survey regarding your CAAHEP accredited undergraduate athletic training education program.. If you have not returned the survey, please take a moment to complete it and return it in the self-addressed envelope that was provided. It is vital to the completion of this study that the completed survey be returned by November 15, 1994.

Thank you for your valuable contribution to the field of athletic training.

Sincerely Yours,

Rod Poindexter

APPENDIX IV

1994-1995 APPROVED/ACCREDITED ATHLETIC TRAINING EDUCATION PROGRAMS

- (1) Undergraduate Athletic Training Education Programs (NATA)
- (2) Graduate Athletic Training Education Programs (NATA)
- (3) Entry-Level (Undergraduate & Graduate) Athletic Training Educational Programs (CAAHEP)

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