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"The Minnesota Athletic Trainers' Association is an allied health professional association dedicated to: enhancing the quality of health care for the physically active through the promotion of professional growth, educational enhancement, as well as, the recognition of certified athletic trainers and their valued as health care providers."

Historical Comparison of Professional Medical and Allied Health Education

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Professional health care education of today is a highly complex process that requires constant oversight in the form of university and program accreditation. This was not always the case, however. The original education process for the three traditional learned professions - law, theology, and medicine - largely followed the apprenticeship model. Although there are advantages to this type of education system, it has been generally agreed upon that the variation in product quality from the apprenticeship system is too great to allow it to continue in the area of professional education.

Medicine

During the 1800s, medical schools grew throughout the country. Whereas the previous focus on medical education was the apprenticeship model, the professional medical schools of this era developed curriculums heavy on didactic education and drifted away from the concept of learning by doing. As the century evolved, however, it was determined that neither educational system (i.e., professional schools or apprenticeship) was individually capable of generating a consistently qualified product. Therefore, it was determined that in order to create a competent health care provider professional schools should combine the practical qualities of apprenticeship with the academic qualities of structured education (Brubacher & Rudy, 1997).

Although this fundamental change in the curriculum of medical schools had an important effect on improving the quality of medical education, medicine did not make significant improvements in its educational process until the beginning of the 20th century. At the end of the 19th century there were around 160 schools awarding the degree of Doctor of Medicine. By 1920, this number had decreased to 85 (Brubacher & Rudy, 1997). A major impetus for this change came from the research of Abraham Flexnor. Working with support from the Carnegie Foundation for the Advancement of Teaching and the American Medical Association, Flexnor's research had created a system for evaluating the quality of each medical school in the country. This evaluation system identified the quality of the student produced by each school, which in turn directed student enrollments towards those schools that produced the more qualified medical doctor (Brubacher & Rudy, 1997).

Physical Therapy

Although a different health care profession, physical therapy followed a developmental path with similar threads as medicine. In 1914, the first class of "reconstruction aides" graduated from Reed College and Walter Reed Hospital in Portland, Oregon. Although aspects of the practice of physical therapy can be seen much earlier in history, this event is generally considered to be the origin of physical therapy as it is practiced today (Moffat, 1996). Of particular interest is the reason behind the development of these "reconstruction aides". At this point in history, the United States became increasingly more involved in World War I. As soldiers returned from the war, a need developed for health care providers who could rehabilitate the wounded soldier.

The most qualified individual identified to fulfill this need was someone

who had experience in health care and physical activity. Consequently, the first groups of "reconstruction aides" were graduate nurses or physical education specialists (Moffat, 1996). Following this point in time, more professional "physical therapy" education programs were created to help fulfill the growing need for these specialized health care providers; however, there was not yet a requirement for physical therapists to graduate from a university-based baccalaureate program. Instead, the majority of physical therapy education programs were certificate programs that were modeled after teacher education programs (Moffat, 1996). This lack of a standard educational process with significant academic rigor focused on health care limited the ability of the profession to develop a consistently qualified practitioner. Therefore, in 1937, a movement had begun in the profession to change the educational process from a certificate program to a university-based baccalaureate program. From this point on, the role of the physical therapist developed from that of a technician to more of a professional practitioner. By 1956 and with the formal approval of the American Medical Association, the baccalaureate degree was identified as the minimum degree for entry-level physical therapy education (Moffat, 1996).

Athletic Training

Similar in time to the development of the rating system for professional medical schools and the creation of the first reconstruction aides for wounded soldiers, the need for providing health care for intercollegiate athletes gained national exposure with President Theodore Roosevelt's warning to colleges to clean up intercollegiate football (Ebel, 1999). In response to this demand, as well as recognizing the need to provide health care for all student-athletes, colleges began to hire individuals that could care for these injured students. These first health care providers, similar to physical therapy, did not specifically exist. Therefore, individuals with experience in medicine, physical education, and / or physical therapy were recruited by various colleges to provide health care services for their student-athletes.

It did not take long for the individuals of this newly developing health care profession to identify the need for unifying their standards of practice. Therefore, in 1938, the first attempt to form a national association of athletic trainers was initiated; however, this first organization was unable to sustain itself because of the demands of the Second World War. Following the war, athletic trainers reorganized and in 1950 formed what is today the National Athletic Trainers' Association (Ebel, 1999). Although this association has performed many important acts related to the development of the profession, perhaps the association's two most important acts were to identify the significance of creating a national board exam and a standard educational process for those who wish to practice athletic training.

By 1969, the first formally approved athletic training education programs in an accredited university or college were created, and in the following year the first national certification exam for athletic training was given (Ebel, 1999). Although a significant step forward, it was not yet required at this time for all practicing athletic trainers to complete a standard educational process. Once again it was identified by the respective health care profession that it would be necessary to require a standard educational process of significant academic rigor in order to maintain that qualified health care professionals are produced by the education program. However, to attain this goal, the profession would require the formal recognition of being an allied health profession by the American Medical Association, which it gained in 1990 (Ebel, 1999). Following this recognition, the profession continued its pursuit of a standard entry-level educational process that would require a university-based baccalaureate degree specifically in the study of athletic training. In 2004, the profession finally achieved this goal.

Discussion

Although the practice of the health care professions described above vary, each one does share similar patterns in regards to the development of their educational processes. Consequently, the following common themes can be identified: (1) there is an identifiable demand from the public for quality health care, (2) to maintain quality a structured educational process of significant academic rigor is required of all individuals wanting to practice the specific health

care profession, and (3) the need to standardized and oversee the educational processes for each profession was identified by the practitioners of the respective profession. As for differences in the educational development of each profession, the primary dissimilarity is the time period by which each profession achieved these milestones.

References

- Brubacher, J. S. & Rudy, W. (1997). Professional education. In L.F. Goodchild & H.S. Wechsler (Eds.) *The history of higher education* (2nd ed., pp. 379-393). Needham Heights: Simon & Schuster Custom Printing
- Ebel, R. G. (1999). *Far beyond the shoe box: Fifty years of the National Athletic Trainers' Association*. New York: Forbes Custom Publishing.
- Moffat, M. (1996, June). *The 1996 APTA Presidential Address: Three quarters of a century of healing the generations*. Presented at Physical Therapy '96: Scientific Meeting and Exposition of the American Physical Therapy Association, Minneapolis, MN.



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Overview of the Education of Today's Athletic Training Practitioners

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The education of athletic training practitioners, as with other health care professions, must be assessed in a variety of ways in order to assure that quality services are provided the public. There are three methods in which educational quality and competency are typically assessed: quality of the educational programs themselves (program self-assessment), external specialized accreditation of those educational programs, and external credentialing examinations (excluding state practice acts) that assure the final entry-level competency of the practitioner. Athletic Training uses all three methods in order to assure high-quality, competent practitioners.

Entry-Level Education Programs for Athletic Training

Entry-level Athletic Training Education Programs (ATEP) use a medical-based education model to deliver a competency-based approach in both the classroom and clinical education settings. The content of the "Athletic Training Educational Competencies and Proficiencies" is derived from a semi-annual professional role delineation study with content based on cognitive (knowledge), psychomotor (knowledge and skills), affective (professional behaviors and beliefs), and clinical proficiencies (professional, practice-oriented outcomes). All ATEPs deliver the competencies via classroom, laboratory, and directly supervised clinical practice that are based on student progression through the program (*Board of Certification Athletic Trainer Credentialing Candidate Handbook, 2004; Exam Development and Scoring Information, 2005; Facts About Athletic Trainers, 2004; Standards and Guidelines, 2001*). Although the ATEP content is competency-based students will receive formal classroom and laboratory instruction in the following general subject matter areas:

- ▶ assessment of injury/illness
- ▶ exercise physiology
- ▶ first aid and emergency care
- ▶ general medical conditions and disabilities
- ▶ health care administration
- ▶ human anatomy
- ▶ human physiology
- ▶ kinesiology/biomechanics
- ▶ medical ethics and legal issues
- ▶ nutrition
- ▶ pathology of injury/illness
- ▶ pharmacology
- ▶ professional development and responsibilities
- ▶ psychosocial intervention and referral
- ▶ risk management and injury/illness prevention
- ▶ strength training and reconditioning
- ▶ statistics and research design
- ▶ therapeutic exercise and rehabilitative techniques
- ▶ therapeutic modalities
- ▶ weight management and body composition

Athletic training students must also complete a minimum of two years of academic clinical education and field experience. Students must always be directly supervised and must be instructed and assessed by an Approved Clinical Instructor (ACI) (*Standards and Guidelines, 2001*). The ACI must assess the students' initial proficiency, or ability to perform clinical skills, before the student may apply any skill to a patient in a supervised clinical setting. In addition, the student must receive ongoing formative and summative assessment (by an ACI) of these skills in order to assure that the student is continuing to learn and to improve his/her clinical knowledge and skill over time. All students must, at a minimum, complete clinical education/field experience with activities that involve upper extremity injury/illness, lower extremity injury/illness, equipment intensive

high-risk activities which involve protective equipment and trauma, and a general medical intensive rotation (cardiorespiratory, metabolic, infection, etc) (*Standards and Guidelines*, 2001).

It is also very important to understand that the content of any educational program is more important, with regards to patient care, than the level of the degree (i.e. bachelors, masters, or doctorate). The knowledge and clinical skill of the practitioner are important in the health and welfare of the patient, not the degree obtained for the education. With that stated, it must be noted that all Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited ATEPs must offer a bachelor or masters degree and 70 percent of all Certified Athletic Trainers in the United States have a masters degree or beyond (*Facts About Athletic Trainers*, 2004). The educational programs for athletic trainers offer high-quality, professionally consistent, competency-based education that produce (documented via program outcomes data) highly competent health care professionals.

Specialized Accreditation

Specialized (or programmatic) accreditation is an independent review of the quality (process and outcomes) of ATEPs. Accredited programs are measured by nationally recognized Standards (*Standards for the Accreditation of Entry Level Educational Programs for the Athletic Trainer*) that have been developed by professionals involved in and with the discipline of athletic training. The Standards and reflect the *minimum* quality necessary to prepare individuals entering into athletic training practice (*Standards and Guidelines*, 2001).

The American Academy of Family Physicians, The American Academy of Pediatrics, the American Orthopaedic Society for Sports Medicine, and the National Athletic Trainers' Association (NATA), cooperate to establish the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT). The JRC-AT is a Sub-Committee on Accreditation (CoA) of CAAHEP whose purpose is to develop, maintain, and promote appropriate minimum standards of quality for educational programs in Athletic Training.

The *Standards for the Accreditation of Entry Level Educational Programs for the Athletic Trainer* are used to prepare entry-level athletic trainers and for the development, evaluation, self-analysis, and maintenance of ATEPs. It is the responsibility of each institution to demonstrate compliance with these *Standards* to the JRC-AT in order to obtain and maintain recognition as a CAAHEP accredited Athletic Training Education Program.

All ATEPs must be CAAHEP accredited in order for the program's graduates to be eligible for the national board examination, which along with individual state practice acts, are the final method of assuring competent and qualified athletic trainers (*Board of Certification Athletic Trainer Credentialing Candidate Handbook*, 2004).

Credentialing Examination

In athletic training, as with all health care professions, it is imperative that graduates pass a credentialing examination prior to initiating professional practice. This type of examination is necessary to provide a standard of care that will protect the public from harm caused by an incompetent practitioner (NATABOC Role Delineation Study, 1999). The National Athletic Trainers' Association Board of Certification (BOC) examination is the entry-level credentialing examination for athletic trainers in the United States (NATABOC Role Delineation Study, 1999). The results of this examination also are used as the major component of 43 state practice acts (Personnel Communication: Board of Certification, November 15, 2004). The credibility of the BOC and of the Certified Athletic Trainer (ATC®) credential is supported by three pillars: the BOC examination itself, the BOC Standards of Practice and Disciplinary process, and the continuing education requirements (80 hours of continuing education every 3 years) (*Board of Certification Athletic Trainer Credentialing Candidate Handbook*, 2004).

The examination is a criterion-referenced examination consisting of three sections: a written simulation (unique testing format that assesses decision-making ability and critical thinking), a written, and a practical. The BOC employed, and worked with, CASTLE™ Worldwide, Inc. (CW) to develop and to deliver the certification examination. CASTLE™ Worldwide is a professional

testing service that specializes in certification and licensing examinations. CASTLE™ Worldwide assists the BOC with examination development, examination validity and reliability assessment, and delivery and scoring of the examination. CW utilizes a criterion-referenced approach called the Angoff Modified Technique. This technique requires that a panel of athletic trainers review and evaluate the examination questions according to how successful a minimally acceptable, but competent, candidate would be in answering each question. This is then used to determine the passing, or 'cut' score for each section of the examination (*Exam Development and Scoring Information*, 2005).

To become an ATC® the student must pass all three sections of the BOC examination. The BOC and the BOC certification examination is recognized by the National Commission for Certifying Agencies, and is the only accredited credentialing agency for athletic trainers (*Board of Certification Athletic Trainer Credentialing Candidate Handbook*, 2004).

Discussion

In summary, today's Certified Athletic Trainer (ATC®) is highly educated and is extremely well-prepared to act as a reimbursable health care practitioner. The preparation of the ATC® is equal to or actually surpasses other health care professionals. The quality and competency of the educational processes are assured via three methods: program self-assessment and outcomes measures, external accreditation (CAAHEP); and an external credentialing (BOC). The finally, 42 states have legislative acts that regulate the practice of athletic training. It is the content, the quality, and the quality assurance processes that assure that the physically active public receives quality health care from a highly-qualified athletic trainer. Thus the preparation of the athletic trainer should be viewed through the same lens as any other health care profession.

References

- Board of Certification Athletic Trainer Credentialing Candidate Handbook*. (2004, January 6, 2005). Retrieved January 6, 2005, from www.bocatc.org/becomeatc/CANDIDATE/
- Exam Development and Scoring Information*. (2005, January 6, 2005). Retrieved January 6, 2005, from www.bocatc.org/becomeatc/EXAMDEV/
- Facts About Athletic Trainers*. (2004). Retrieved January 5, 2005, from www.nata.org/publicinformation/index.html
- Standards and Guidelines for an Accredited Educational Program for the Athletic Trainer*. (2001). Retrieved January 5, 2005, from www.caahep.org/caahep/accredit.asp?doc=AT_SG_2001