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### A Model for Clinical Education in Athletic Training

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#### ABSTRACT

Clinical education is an intrinsic part of most allied health educational programs. However, conceptual models differ as to what constitutes quality for clinical experiences. As a relatively new allied health care field, athletic training education is adapting in order to meet the needs of a changing health care environment. Recent initiatives for clinical education mark the change from a quantitative (hours of exposure) approach, to one emphasizing quality (mastery over time). However, in this transition from field-based to curriculum emphasis, the coherence between different aspects of the educational process have weakened. This paper presents a background of clinical education in athletic training and presents a model for allied health education that offers distinct didactic, clinical, and field experience components.

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#### INTRODUCTION

Athletic training educational programs were first formalized in the 1950's, shortly after the organization of the National Athletic Trainers' Association (NATA). These early programs consisted of a weak curricular component and a strong experiential component for the acquisition of clinical skills. The clinical aspect of these early programs followed an internship model where professional skills and knowledge were gained through a "hands-on" work environment. However, as the profession of athletic training has changed over the past fifty years, so have the conceptual models for athletic training education.<sup>1</sup>

As part of a large education reform package, the NATA has recently initiated new clinical education guidelines and developed a document containing the specific clinical skills that must be taught.<sup>2</sup> These Clinical Proficiencies define the set of skills that entry-level athletic trainers should possess. Adoption of these proficiencies to guide clinical education marks the change from a quantitative (hours of exposure) approach, to one emphasizing quality (mastery over time).<sup>3</sup>

Under the new guidelines, all athletic training programs should include clinical education courses that have academic syllabi and include educational objectives and specific clinical skill outcomes. These syllabi should indicate when the presentation of different clinical proficiencies occur, and must describe the method by which the outcomes will be measured. At least four clinical education courses must be taught in a semester-based program, and the clinical education component must be at least two years in duration.<sup>2</sup>

For undergraduate students, the clinical education experience must be under the supervision of an Approved Clinical Instructor (ACI) who is responsible for the instruction and evaluation of the clinical proficiencies. The ACI may work directly with undergraduate students, or in coordination with Clinical Instructors (CI's) who are not responsible for instruction or evaluation, but assist undergraduate students in their field experiences.<sup>2</sup> The ACI's and CI's are often graduate assistants (GA's) who have passed the athletic training certifying examination to become ATC's, or they may be full-time athletic training staff at the program-

sponsoring institution or nearby high schools, clinics, or colleges.<sup>2,4</sup> When these athletic trainers take on ACI or CI responsibilities, they accept the role as educator for students under their supervision.<sup>5</sup>

### **EDUCATIONAL MODELS**

Athletic training clinical education is based on what is referred to as the “medical model” which is never clearly defined in the athletic training literature. A review of medical education literature reveals that the “medical model” was originally apprentice-based, but has changed significantly over the past one hundred years, with at least four distinct curricular models.<sup>6</sup> Each successive model built on the strengths of the previous one, and attempted to eliminate the weaknesses by a change in approach.

Clinical education for athletic training was developed around the centuries-old apprenticeship model similar to that used in early nursing curricula.<sup>7</sup> Essentially this practice involved a year of classes, and student placement with a mentor. The “apprentice” would then follow the “mentor” as he/she performed his/her daily duties as the primary method of obtaining knowledge and clinical skills.<sup>6</sup> This approach provided no control over the length of the experience, nor on the types or quality of experiences the student would encounter. Full control of the experience rested in the hands of the mentor.

In athletic training, the shortcomings of this approach were recognized and an hours-based approach was adopted. This change assumed that by requiring a certain number of experience hours, the student would encounter a wide enough range of situations to be considered an able athletic trainer. Problems with this approach prompted the next change, which involved strengthening the academic curriculum and mandating experience in different clinical/sport settings.<sup>1</sup>

However, in practice, these two approaches often left athletic training students unsupervised, and placed in situations where they were expected to perform as fully qualified professionals. This practice endangered athletes, and did not ensure that students possessed the scope of knowledge and experience that athletic trainers should have before providing unsupervised care to athletes.

The most recent changes to clinical education have been spurred by education reforms, that have attempted to incorporate the strengths of the apprenticeship model and the hours-based approach to create a new educational model that favors qualitative measures of student achievement.<sup>8,9</sup> “Learning over time” is the catch phrase for the newly implemented model, which is a variation of the mastery learning educational concept.

The NATA has adopted each new educational approach in attempts to remedy problems associated with previous educational models. Since athletic training is an allied health care field, education reform has emulated models from other fields as evidenced in nursing and physical therapy programs.<sup>10</sup> The combination of formal coursework and clinical education for professional preparation is sometimes called the allied health care model.<sup>9</sup> However, the structure of the clinical education component varies drastically between programs.

### **Current practices in clinical education**

Clinical education in athletic training has seen a period of rapid change. These changes, prompted by educational reform, have required programs to quickly adapt to a new set of accreditation standards. Failure to meet these standards results in loss of program accreditation.

The previous practice of unsupervised field experiences and lack of a structured clinical lab are no longer acceptable. Many program directors have responded as quickly as possible given the resources at hand. Namely, they have given the responsibility for clinical instruction, evaluation, and supervision to the athletic training staff that is employed through athletics. When this occurs, the athletic training staff is then required to complete ACI training, evaluate the students individually, and maintain accountability for student learning. This increased workload may place staff athletic trainers in conflict between their team assignments and clinical education responsibilities. This conflict inevitably results in poor clinical education.

Academics has often relied on the athletic training staff to provide both clinical education and a supervised field experience, and many also require them to teach the didactic courses. Additionally, the athletic training staff, which may only be two or three people, must perform in all of their athletic responsibilities including coverage of practices, games, and travel for up to twenty-six teams. Often, a single athletic trainer is responsible for more than one team.

Some staff athletic trainers continue to accept additional clinical education responsibilities because of the threat of possibly losing their accreditation, and thereby losing student help. Institutions that have risen to the occasion and hired additional staff athletic trainers, usually create one or two new full-time staff positions. However, with 13–26 athletic teams, an additional staff member or two is often insufficient to handle the workload. As a result, the remaining responsibilities are distributed between GA's.

Recently academic programs have begun to address the need for more clinical education staff. Unfortunately, GA's are filling many of these new positions as well. This is not an ideal situation. Graduate students are typically newly certified, and rarely have practical experience. For them to take on teaching responsibilities is detrimental to quality because they lack professional experience.

Teaching, supervision, and evaluation methods are not entry-level skills. They require education, practice, and experience to perform well. Current practice varies between institutions, but often, ACI's are left to develop these methods individually. Graduate students are generally not prepared to execute these responsibilities well. Experienced professionals should provide clinical education. Furthermore, ACI's should be part of the academic staff and receive an appropriate load for clinical supervision. For quality clinical experiences, quality clinical instructors and supervisors are needed.<sup>10</sup>

### **A new model for athletic training education**

Ideally, athletic training education would consist of three entities, separate in function, but with similar goals. The program director and athletic training faculty would teach the didactic portion of the educational program in a traditional classroom setting. These courses would provide the theoretical base for athletic training practice. A combination of applied theory, problem-based and reflective teaching methods would forge the link between theory and practice. A full-time faculty member would serve as the clinical coordinator for the program. This person would be responsible for structured clinical experiences in a laboratory setting. These courses would be taught and supervised by either the clinical coordinator or another ACI and would involve a small group of students, ideally 5-10 per class. ACI's should have at least 3 years of experience and be hired as appropriately compensated educators. These individuals would act as mentors, coaches, and facilitators, helping the students to understand the context for application of the skills and knowledge they have acquired. In this laboratory setting, the clinical proficiencies would be taught, practiced, and evaluated. The ACI would be in constant auditory and visual contact during the entire experience, and serve as a facilitator for students to internalize the knowledge they have learned and apply it to professional practice. Specific clinical skills would be demonstrated prior to practicing them in the field experience.

Field experiences would comprise the third part. The program director would assign one or two upper-division students in their final year to a field supervisor who is an ATC with at least three years of professional experience. During this time, the students would shadow an ATC and practice the clinical proficiencies they have acquired.

In preparing to be practitioners, athletic training students must be capable of doing, not just knowing. And while students first learn to do many of the clinical skills in the structured clinical experiences, applying these skills and knowledge in the practical setting is a vitally important aspect of the educational experience. Handling situations with real injuries is very different than hypothetical case studies and scenarios. Since athletic trainers must work with physically active people who feel pain, bleed, and have myriad individual differences, athletic training education must encompass this aspect of the profession. In discussing the importance of supervised clinical education in nursing, Tanner states that students need practice thinking and acting like nurses in situations that are not threatening to patient safety.<sup>11</sup> The same can be said for athletic training students.

Additionally, the field experience serves to develop a sense of professionalism within the students. Students, who observe how other ATC's interact with patients, will have a sense of how they should interact. Field supervisors facilitate the student transition from thinking like athletic trainers, to treating patients like an athletic trainer, to becoming athletic trainers.

Quality clinical education is of critical importance for allied health care professions. As educational models develop, both theory and practice need to be incorporated in a progressive manner that nurtures student development and acquisition of professional skills and knowledge. The transition from a field-based educational experience to a curriculum emphasis has standardized the knowledge and skills that entry-level athletic trainers should possess. Unfortunately, clinical education has been slower to accommodate these changes in a way that supports the performance aspect of the profession, while ensuring quality instruction and experiences for students. Athletic training education has greatly improved as a result of reform efforts. However, there is still

room for improvement. Structured clinical experiences leading to supervised field experiences will help students transition into their professional roles as allied health care providers.

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## REFERENCES

1. Delforge G, Behnke R. The history and evolution of athletic training education in the United States. *J Athl Train* 1999; 34(1): 53-61.
2. National Athletic Trainers' Association Education Council. Guidelines for the clinical education of students enrolled in accredited athletic training education programs. Dallas, TX; 2002.
3. Teaching and evaluating the clinical proficiencies [editorial]. *NATA News* 2002; 21.
4. Hougum P. Terminology: a rose is a rose, but according to whom? Part II. *NATA News* 2001; 12: 40-41.
5. Martin M. Let's not forget what the educational experience should be! *NATA News* 2001; 12: 18.
6. Papa FJ, Harasym PH. Medical curriculum reform in North America, 1765 to the present: A cognitive science perspective. *Acad Med* 1999; 74(2): 154-164.
7. Dunn SV, Ehrich L, Mylonas A, Hansford BC. Students' perceptions of field experience in professional development: a comparative study. *J Nurs Ed* 2000; 39(9): 393-400.
8. Hunt V. Progress of a profession: athletic training matures, sets stage for future. *NATA News* 1998; 1: 8-11.
9. Starkey C. Reforming athletic training education. *J Athl Train* 1997; 32(2): 113-114.
10. Weidner TG, Laurent T. Selection and evaluation guidelines for clinical education settings in athletic training. *J Athl Train* 2001; 36(1): 62-67.
11. Tanner CA. Clinical education, circa 2010. *J Nurs Ed* 2002; 41(2): 51-52.